

**The Commanders' Integrated Training Tool for the  
Close Combat Tactical Trainer:  
Functional Architecture (Design)**

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Technical review by

Edmund J. Carberry, U.S. Army Training Support Center

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Colonel Louis Gelling, Jr. and Lieutenant Colonel Jeff Wilkinson
- Program Manager (PM) for the Combined Arms Tactical Trainer (CATT)  
Bob White
- The Army Training Support Center (ATSC)  
Edmund J. Carberry

Personnel within the units and agencies listed above provided exceptional support to the project team through detailed product reviews. Without their assistance, the CITT Project design would not have been accomplished in the detail and form in which it currently exists.

**THE COMMANDERS' INTEGRATED TRAINING TOOL FOR THE CLOSE COMBAT  
TACTICAL TRAINER: FUNCTIONAL ARCHITECTURE (DESIGN)**

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# THE COMMANDERS' INTEGRATED TRAINING TOOL FOR THE CLOSE COMBAT TACTICAL TRAINER: FUNCTIONAL ARCHITECTURE (DESIGN)

## Background

The research note provides detailed documentation on the recommended design of the Commanders' Integrated Training Tool (CITT) stand-alone application. The CITT is designed to provide commanders and training developers with ready access to information concerning the Close Combat Tactical Trainer (CCTT), existing CCTT training support packages (TSPs), and guidance and tools for modifying and developing CCTT TSPs. This system is but the latest step in the development of the methodology originally defined by Campbell, Campbell, Sanders, Flynn, and Myers (1995). It is designed to provide commanders and unit trainers with the tools to maximize their training experience.

This documentation takes the form of numerous Integrated Computer Aided Manufacturing Definition or IDEFØ diagrams, IDEFØ-based documents, and text-based data sources. The documentation of this system is fully supportive of existing Army Training Information Management Program (ATIMP) Systems requirements as indicated by the Department of Defense (DOD) Enterprise Model development, approval, and maintenance procedures (Department of Defense, 1993) and supported by the Federal Information Processing Publication 183, Integration Definition for Function Modeling (IDEF) (U. S. Department of Commerce, 1993). These documents facilitate the future integration of CITT with the Standard Army Training System (SATS) and the Automated Systems Approach to Training (ASAT).

## Purpose

The short-term purpose of this model is to detail the objective CITT design.

The long-term purpose of this model is to capture a complete design for an application that can be built at a later time. This application is designed and intended to automate the training exercise development process for the CCTT. The goal is to provide training developers with a simple yet powerful tool that allows them to develop task-based training exercises following a common rule-set.

## Scope

This model depicts the overarching, top-level process for the creation, implementation, and management of structured, simulation-based exercises developed for use in the Close Combat Tactical Trainer. This process provides the capability for the user to review information concerning the Close Combat Tactical Trainer and the concept and methodology for developing structured training as defined by Campbell, Campbell, Sanders, Flynn, and Myers, (1995) and refined by Campbell, Deter, and Quinkert, (1997). Additionally, it serves as a tool for the review and modification of existing structured, simulation-based exercises and the creation of new exercises developed for use in the Close Combat Tactical Trainer. It is comprised of four functional architectural processes and supporting activities. Together these are the processes and activities required for the successful completion of structured training in CCTT.

Building upon the design produced and lessons learned as a result of the initial CITT Project and outlined in the initial CITT report (Gossman et al., 1999), the CITT Team expanded the design of the CITT for the CCTT. The focus was on both near- and long-term capabilities for the CITT design and included an expansion of the initial attempt to describe innovative ways to conduct training using the CCTT. As demonstrated in the design documentation, this training will be done using both paper and electronic media-based delivery methodologies and will reinforce the use of the cognitive approach originally outlined in the initial CITT report as defined by Gossman et al. The results of this initial design were provided to the government as research products at the end of the original CITT Project. The CITT-2 design focused on CITT refinement with two objectives in mind. The primary objective was to provide a blueprint for the overall refinement of the existing CITT for inclusion into ATIMP Systems (vice simply for that of SATS). The secondary objective was to provide guidance for the development of a second-generation prototype CITT in stand-alone and distributed versions. This document expands upon and refines the documentation. This design includes lessons learned as a result of formative evaluation as identified in the CITT-2 final report as defined by Gossman et al. (in preparation).

As noted in the previous CITT Project, the IDEFØ models of the CITT design are critical elements in the development of an automated tool designed to facilitate the development of structured training. They are key enablers in that they provide a common framework, an understanding of the processes, and the knowledge required by all individuals involved in the development of those components required in developing structured training exercises.

The Army's training system as exemplified in FM 25-101 (Department of the Army, 1990) provides Army units with the capability to perform their training missions and tasks in order to improve and sustain unit readiness. The functional architecture identifies and details the processes and supporting activities required to accomplish the development of a fully automated training development system. It describes "To-Be" functional requirements for executing training development for CCTT, from the analysis of CCTT systems capabilities through evaluation and management of training products related to training in CCTT. It is an analytical decomposition of the functions, processes, and activities identified in Campbell et al. (1995). It uses Department of Defense Enterprise Model terminology where appropriate.

The IDEFØ models are hierarchical, graphical representations of the functional process and supporting activities that further define, clarify, and explain the functionality of CITT. The models show inputs, controls, outputs, and mechanisms (commonly referred to as ICOMs) for each activity, the relationships between the activities, and the information transfer between the activities.

Together the architecture and models are the means to develop an automated training system. The architecture and models represent the processes, activities, and events that take place to successfully develop structured training for the CCTT and:

- Integrate all training and exercise TSP development process functions into one comprehensive training development system.

- Support the development of a complex technical architecture as well as supporting systems architecture. The technical architecture includes linkages between the CITT (for information and TSP development), the CCTT Exercise Initialization Tool (CEIT) (for a CCTT-based initialization file), and CCTT (for the conduct of training). The result is a system-of-systems.
- Provide a tool for:
  - ✓ Learning about the CCTT as the objective training support system,
  - ✓ Learning about structured training,
  - ✓ Developing structured training support packages in support of a unit's Mission Essential Task List (METL),
  - ✓ Transmitting these packages to training and training support personnel (military and civilian), and
  - ✓ Assessing the impact of CCTT training on overall Army training.
- Identify and detail the functional requirements, the component systems, and links between this system and training functional processes and activities, such as the SATS and the ASAT. This requirement provides a means by which to ensure that prescribed training tasks and methodologies remain current with Army doctrine.

The documents provided in Appendixes A, B, and C detail the CITT "To-Be" Design. As such, they contain data concerning all activities of the CITT design. From a macro level, these include:

- Examine CITT. This component provides information concerning CITT, its intended use, development, capabilities, and limitations as well as detailed guidance on navigation options for the user.
- Learn about CCTT. This component includes information concerning CCTT, its innovative uses, development, capabilities, and limitations. It includes up-to-date CCTT system-specific information in graduated levels (to attend to the needs of casual & specialized users) as well as information concerning how to train using CCTT based upon a task-based, structured methodology.
- Produce Training Materials. This component includes a "how to" prepare and use structured TSPs based upon the structured, simulation-based methodology. It provides information for reviewing the structured training exercises within CITT, and how to select, modify, or create a CCTT exercise. This is the most complex component of the system and includes links to sources of information concerning weapons systems, doctrine, and tactics as well as to all archived exercises developed in and subsequent to the initial Structured Training for Units in the Close Combat Tactical Trainer (STRUCC TT) (Flynn, Campbell, Myers, and Burnside, 1998) and the follow-on STRUCC TT-2 projects (Deatz et al., 1998). Additionally, it includes a linkage to the CEIT that generates a CCTT initialization file and populates critical data fields used in the development of a training support package. Finally, this component includes extensive tutorial/help features based upon lessons learned by various contract teams and as described by Campbell et al. (1995).

- **Coordinate Support Functions.** This component provides information and general "housekeeping" functions internal to the application. It includes the actual links for uploading and downloading archived CCTT exercises. It also includes a tutorial/help feature.

### Viewpoint

Training development and training management are the primary focus of these models. As such, these models are but one viewpoint that can be considered in the detailing of the CITT.

This collection of documents is referred to as a "functional architecture." It includes the For-Exposition-Only (FEO) diagrams and appended activity and ICOM data, the expansion of the FEOs into functional descriptions that include the FEOs with supporting narrative data, the Node Tree or Chart diagrams, and a process flow diagram focused on the Produce Training Materials node. This functional architecture provides a depiction of the training methodology and functional processes and supporting activities that best show the entire process so that subsequent development efforts will provide required functionality. The CITT includes such diverse functions as the delivery of information concerning the training development process and the creation and maintenance of CCTT-based tactical unit TSPs performed at echelons from platoon through battalion/task force.

The viewpoint of this model is on the unit trainer as the training developer. The full development of this system to support unit trainers requires a wide variety of skills and knowledge and requires the teamwork and interaction of training managers, training developers, information technology specialists, trainers, training evaluators, training policy managers, training policy writers, training resource managers, and proponent representatives.

### Contents

The following documents are included as Appendixes to this Research Note:

- IDEFØ diagrams and supporting dynamic data exchange (DDE) documents that detail the activities and all associated ICOMs are included in Appendix A. The U.S. Army Training Support Center (ATSC), acting as the executive agent for the Department of the Army, requires these documents for all Army information systems as mandated by the DOD Enterprise Model development, approval, and maintenance procedures (Department of Defense, 1993). Often referred to as "For-Exposition-Only" or FEO diagrams, the IDEFØ details the functional model that is a representation of a system's functions and the objects that inter-relate those functions. In an IDEFØ model, each process/activity is shown inside a box with inputs, controls, outputs, and mechanisms illustrated by the arrows connected to the diagram as shown in Figure 1.

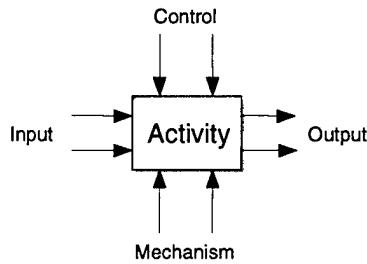


Figure 1. Top-level FEO diagram with ICOMs

- ✓ Inputs represent materials or information transformed or consumed by the activity,
- ✓ Controls represent constraints on the activity with respect to how, when, and/or if an activity is performed. Controls are not transformed as a result of the activity,
- ✓ Outputs represent materials or information that are produced by the activity, and
- ✓ Mechanisms represent a person, machine, or other non-consumable resource used to perform the activity.

All IDEFØ models have a hierarchical structure. Each individual diagram has a "parent" or source diagram except for the top-level diagram that sets the bounds or limits of the model. A parent diagram can have up to eight "children" that help to break out the activities for a particular function within the parent diagram as shown in the Figure 2. Those activities that do not require further exposition will have no children as indicated by the line across the upper left-hand corner of the activity. The appended supporting DDE documents expand upon these FEO diagrams by providing narrative data describing both the activity and associated ICOMs to include notations where deemed appropriate by the originating author. In most instances, ICOMs will carry-over to a child diagram. However, in some instances, ICOMs are tunneled, meaning that further exposition is not conducted. This can be true from either the point of entry (meaning from a parent) or the point of exit (meaning to a child) on the diagram. An arrow with a square at the end indicates ICOM references to external sources not directly affecting the model.

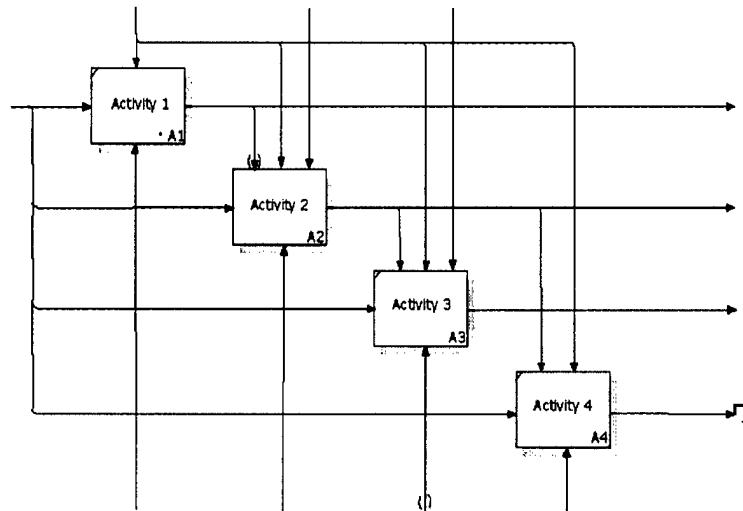


Figure 2. Child FEO diagram with varied ICOMs

- An enhanced version of the IDEF0 model documentation is included as Appendix B. It is commonly referred to as a functional description document. This document details the activities and all associated ICOMs by displaying individual activities and their associated ICOMs on a single page. These documents simplify the description of the model for the uninitiated. In these documents, individual activities are defined and ICOMs are traced within the activities on the same page. Because ICOMs are typically used in more than one activity, definitions for all ICOMs are found at the end of the document.
- A series of "Node Trees" or "Node Charts" is included as Appendix C. Although not as detailed as a FEO, these diagrams provide a quick index for locating activities within the hierarchical structure of the source FEO diagrams. As shown in Figure 3, these documents simplify the navigation within the model for the "non-activity model specialist."

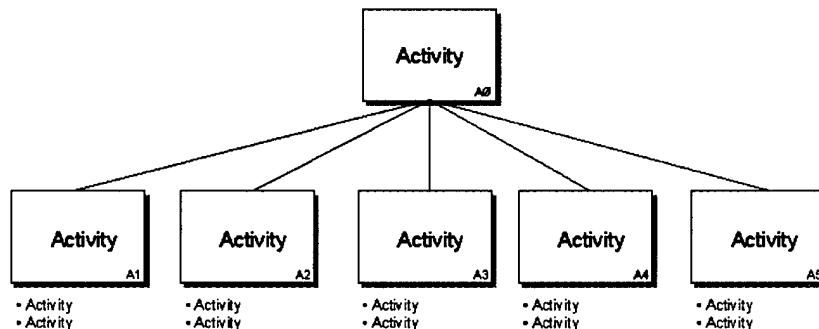


Figure 3. Node Tree diagram

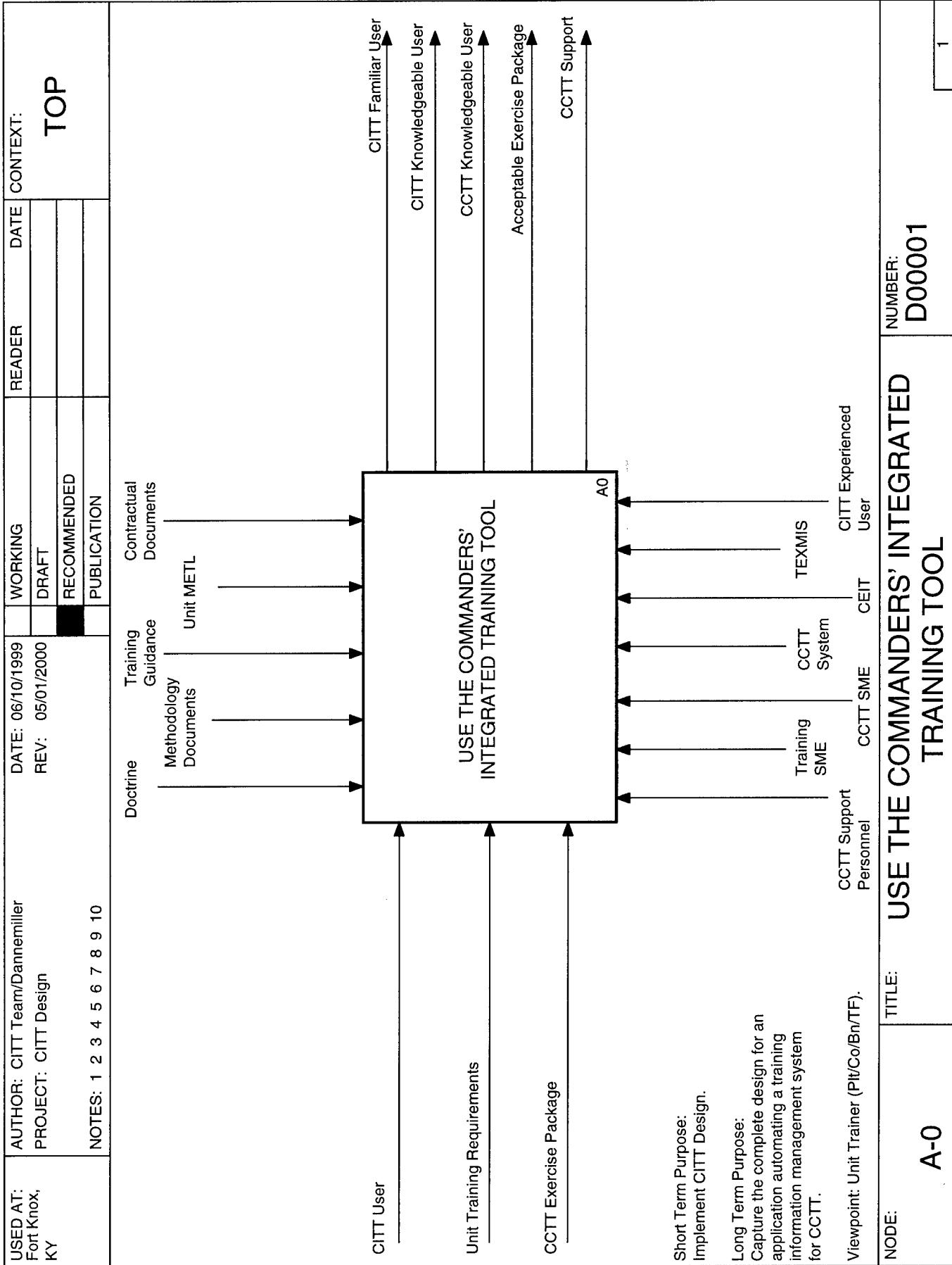
Subsequent diagrams (or children) detail the decomposition of activities to their lowest possible level. All told, there are 62 separate activities found on 18 FEOs within the "To-Be" model. Collectively, these documents provide a thorough description of the proposed CITT model. The expert data modeler can easily use them to complete the design and initiate the development of the object CITT system.

## References

- Campbell, C. H., Campbell, R. C., Sanders, J. J., Flynn, M. R., & Myers, W.E. (1995). Methodology for the development of structured simulation-based training (Research Product 95-08). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Campbell, C. H., Deter, D. E., & Quinkert, K. A. (1997). Report on the expanded methodology for development of structured simulation-based training programs. (ARI Research Report 1710). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Deatz, R. C., Forrest, D., Holden, W. T., Jr., Sawyer, A., Britt, D. B., & Gray, R. (1998). Follow-on development of structured training for the close combat tactical trainer (ARI Research Report 1725). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Department of the Army. (1990). Battle focused training (FM 25-101). Washington, D.C.: Department of the Army.
- Department of Defense. (1993). DOD Enterprise Model: Development, approval, and maintenance procedures. Alexandria, VA: Department of Defense.
- Flynn, M. R., Campbell, C. H., Myers, W. E., & Burnside, B. L. (1998). Structured training for units in the close combat tactical trainer: Design, development, and lessons learned (ARI Research Report 1727). Alexandria, VA: U.S. Army Research Institute for Behavioral and Social Sciences.
- Gossman, J. R., Bonnett, Michael, Forrest, D., Shadrick, S. B., Dannemiller, B., Flynn, M. R., Mauzy, R. P., and Bonnett, Mitch . The Commanders' Integrated Training Tool –2: Second Generation Design and Prototype Development (in preparation). Alexandria, VA: U.S. Army Research Institute for Behavioral and Social Sciences.
- Gossman, J. R., Beebe, M. E., Bonnett, Michael, Forrest, D., Shadrick, S. B., Dannemiller, B., Mauzy, R. P., & Bonnett, Mitch (1999). The Commanders' Integrated Training Tool for the Close Combat Tactical Trainer: Design, Prototype Development, and Lessons Learned (ARI Research Report 1739). Alexandria, VA: U.S. Army Research Institute for Behavioral and Social Sciences.
- U.S. Department of Commerce. (1993). Integration definition for function modeling (IDEF0) (Draft). Springfield, VA: U.S. Department of Commerce.

## Appendix A

### IDEFØ Diagrams and Dynamic Data Exchange Documents



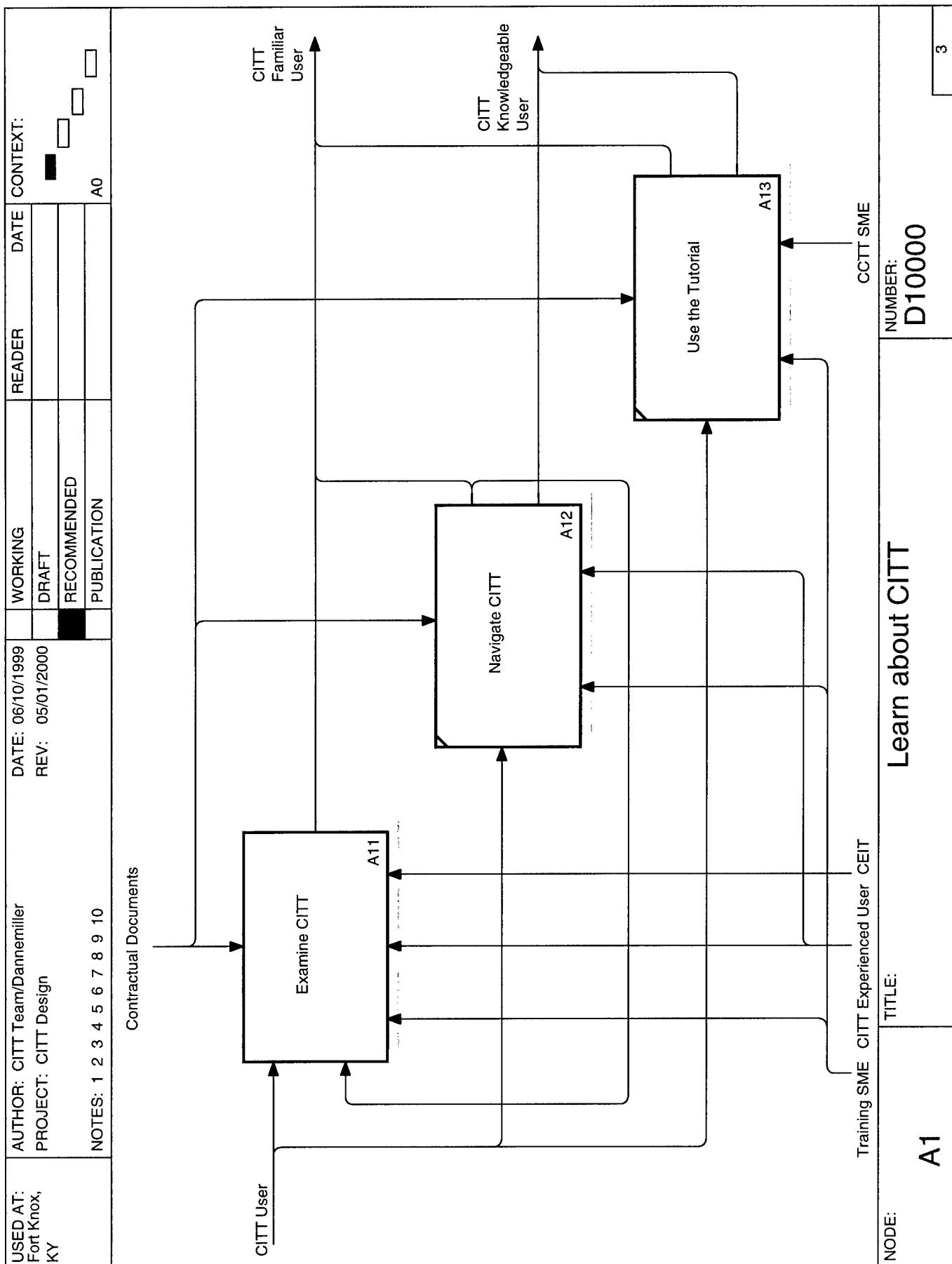
The flowchart illustrates the CITT Commanders' Integrated Training Tool process, structured into four main phases: Learning about CITT, Producing Training Materials, Coordinate Support Functions, and Acceptable Exercise Package.

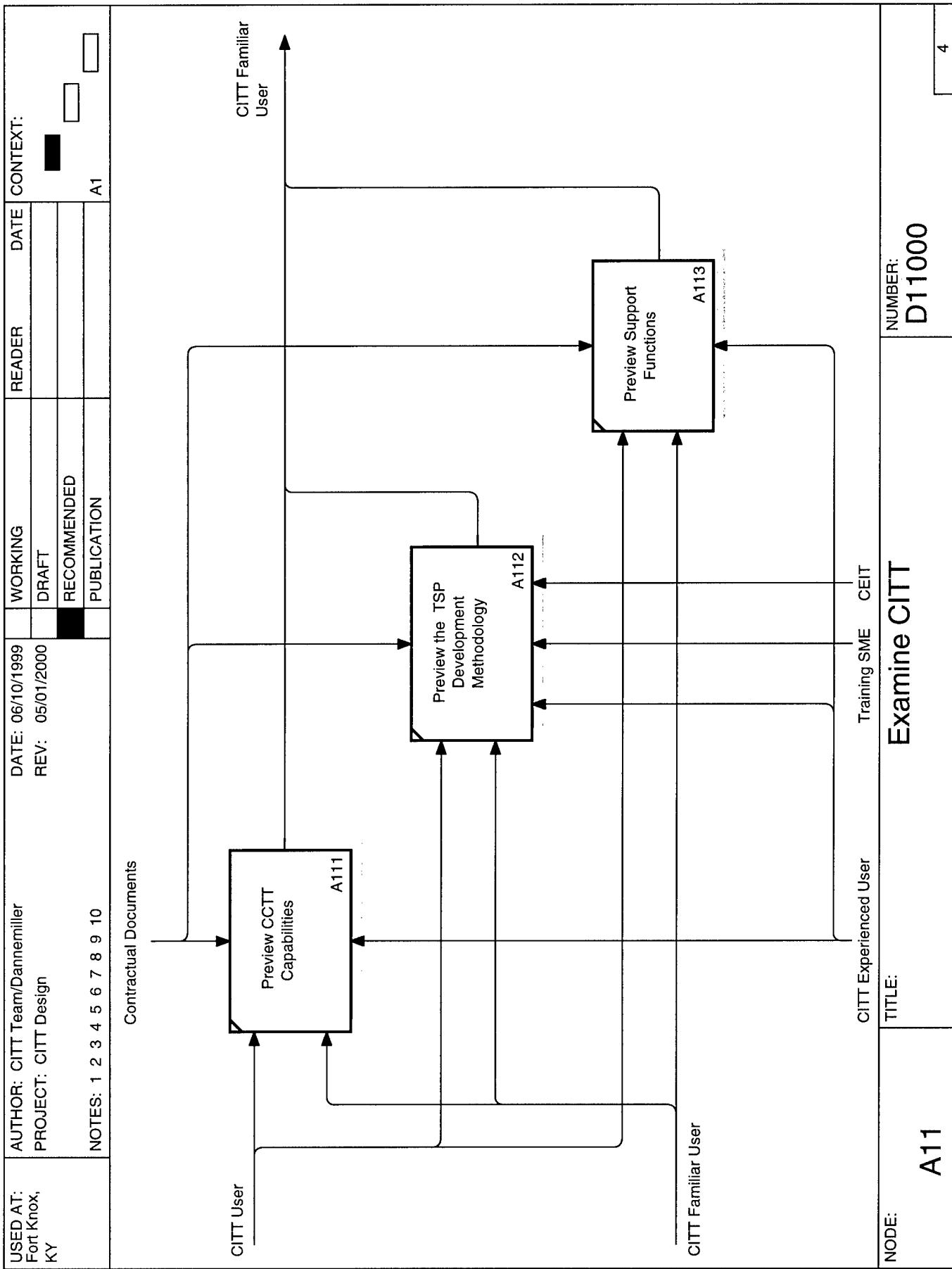
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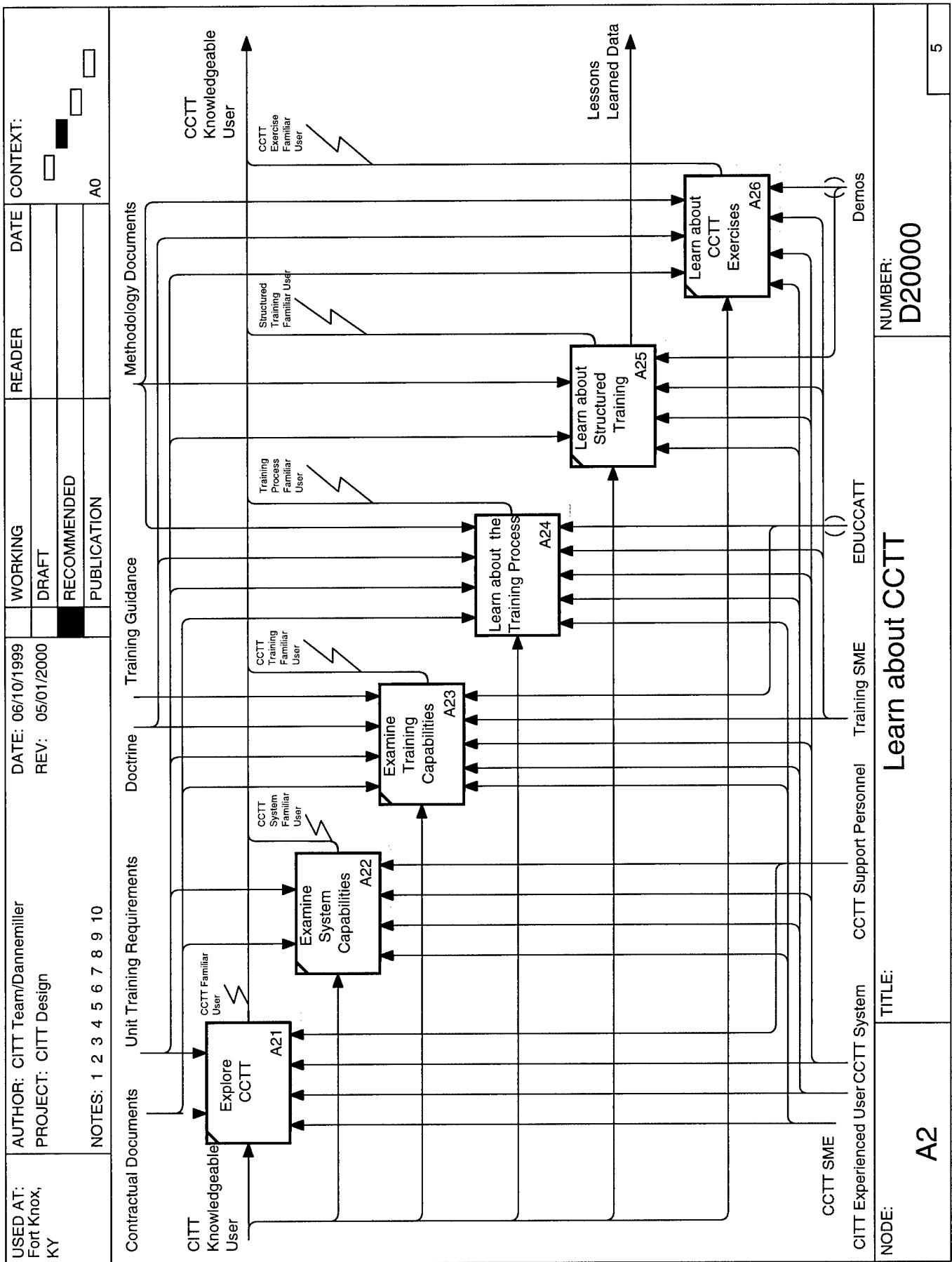
- A0:** CCTT User
- A1:** Learn about CITT
- A2:** Produce Training Materials
- A3:** Coordinate Support Functions
- A4:** Acceptable Exercise Package

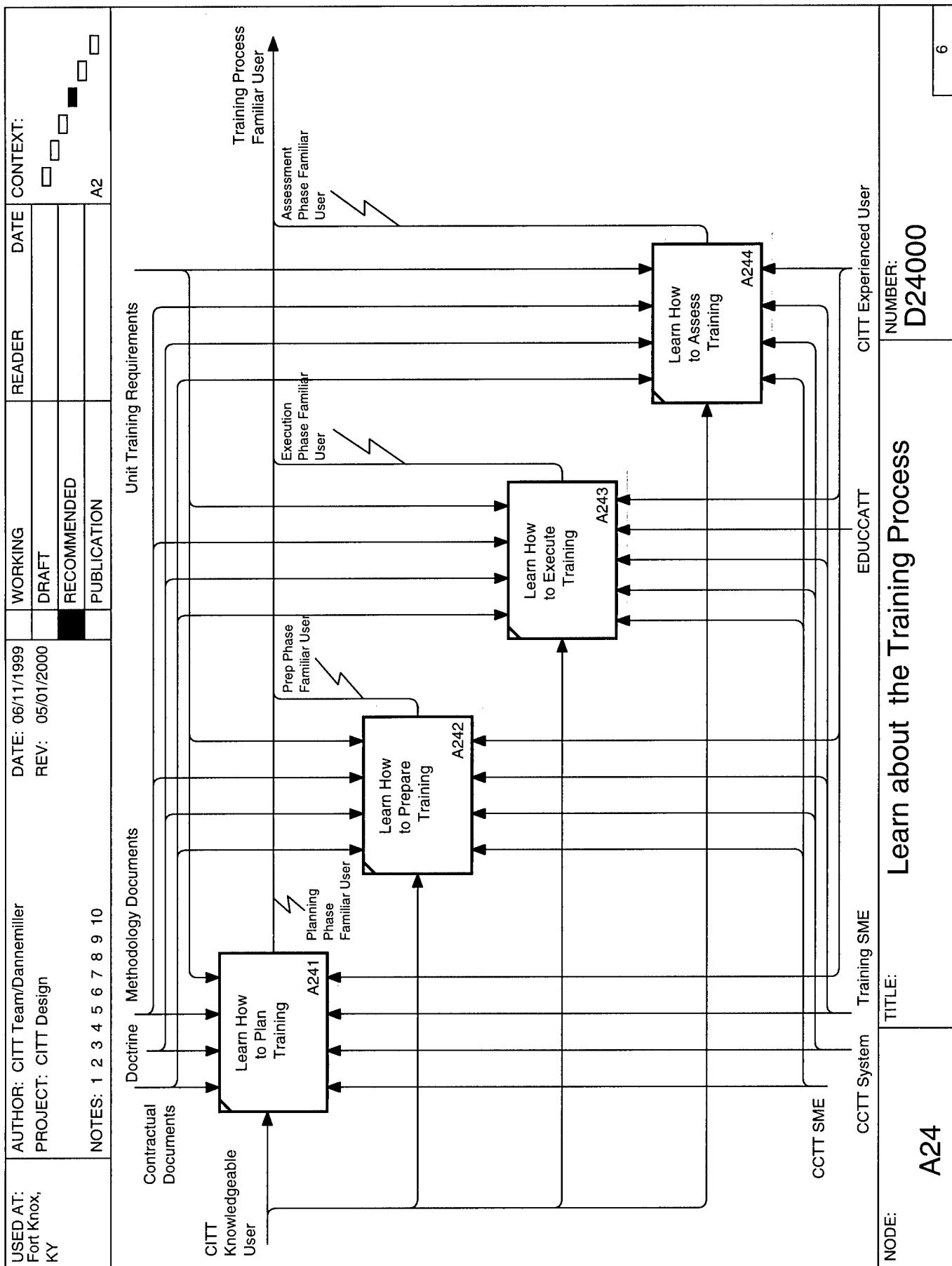
**Flows and Annotations:**

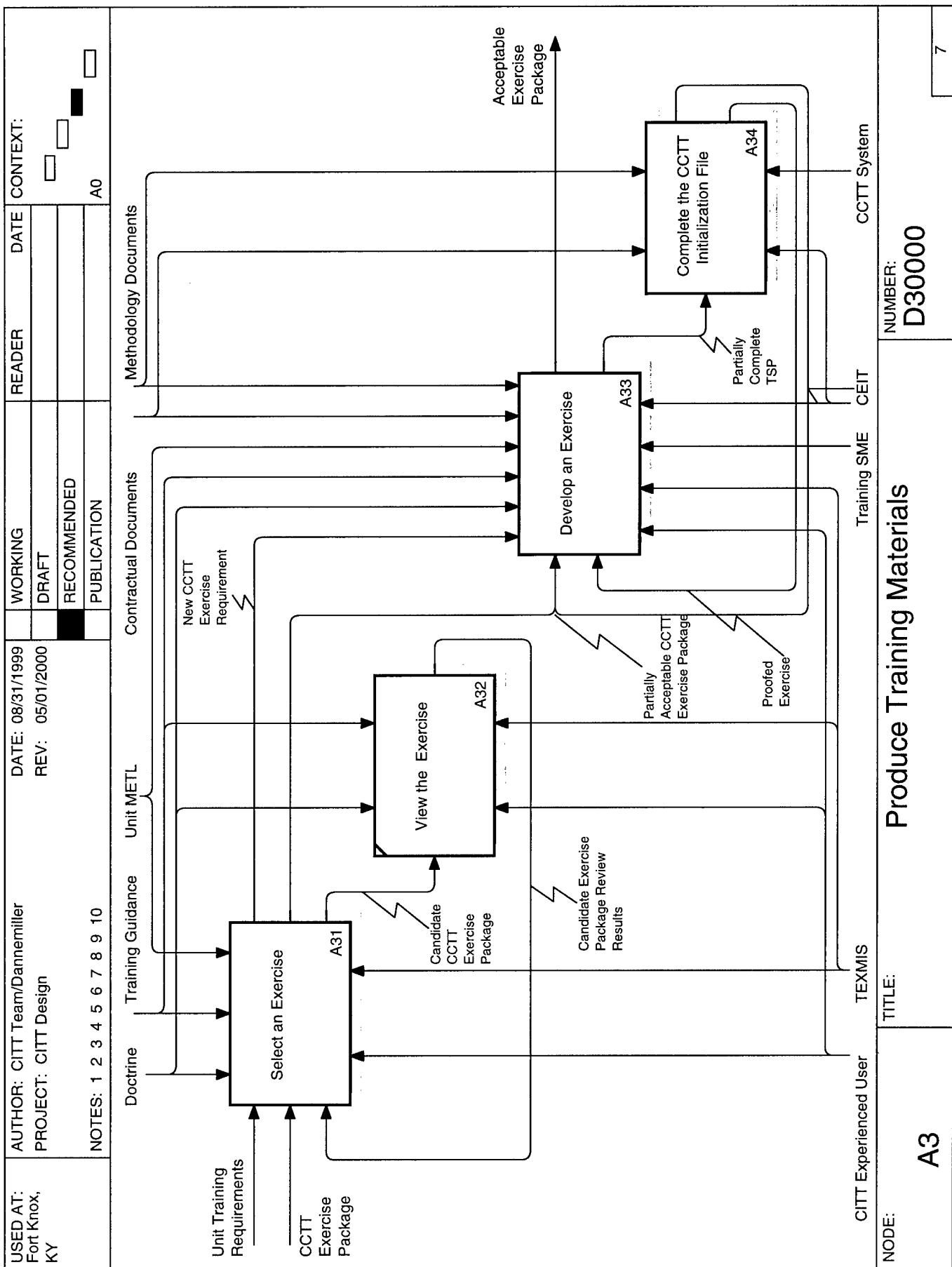
- A0 to A1:** CCTT User feeds into Learn about CITT.
- A1 to A2:** Learn about CITT feeds into Produce Training Materials.
- A2 to A3:** Produce Training Materials feeds into Coordinate Support Functions.
- A3 to A4:** Coordinate Support Functions feeds into Acceptable Exercise Package.
- External Inputs:**
  - CITT User:** CCTT User feeds into Learn about CITT.
  - Contractual Documents:** CCTT User feeds into Learn about CITT.
  - Methodology Documents:** CCTT User feeds into Learn about CITT.
  - Training Guidance:** CCTT User feeds into Learn about CITT.
  - Unit METL:** CCTT User feeds into Learn about CITT.
  - CCTT Familiar User:** CCTT Familiar User feeds into Learn about CITT.
  - CCTT Knowledgeable User:** CCTT Knowledgeable User feeds into Learn about CITT.
  - CCTT Experienced User:** CCTT Experienced User feeds into Produce Training Materials.
  - CEIT:** CEIT feeds into Produce Training Materials.
  - TEXMIS:** TEXMIS feeds into Produce Training Materials.
  - CCTT System:** CCTT System feeds into Produce Training Materials.
  - CCTT SME:** CCTT SME feeds into Produce Training Materials.
  - CCTT Support Personnel:** CCTT Support Personnel feeds into Produce Training Materials.
  - Unit Training Requirements:** Unit Training Requirements feeds into Produce Training Materials.
  - CCTT Exercise Package:** CCTT Exercise Package feeds into Produce Training Materials.
- Internal Processes:**
  - Learn about CITT (A1):** This box contains the sub-processes "CITT User" and "Learn about CITT".
  - Produce Training Materials (A2):** This box contains the sub-processes "Lessons Learned Data" and "Acceptable Exercise Package".
  - Coordinate Support Functions (A3):** This box contains the sub-processes "Acceptable Exercise Package" and "CCTT Support".
  - Acceptable Exercise Package (A4):** This box contains the sub-processes "CCTT Familiar User", "CCTT Knowledgeable User", and "CCTT Experienced User".
- Annotations:**
  - A1:** CCTT User
  - A2:** Produce Training Materials
  - A3:** Coordinate Support Functions
  - A4:** Acceptable Exercise Package
  - A1:** Learn about CITT
  - A2:** Lessons Learned Data
  - A2:** Acceptable Exercise Package
  - A3:** Acceptable Exercise Package
  - A3:** CCTT Support
  - A4:** CCTT Familiar User
  - A4:** CCTT Knowledgeable User
  - A4:** CCTT Experienced User











**USED AT:** Fort Knox, KY    **AUTHOR:** CITT Team/Dannemiller    **PROJECT:** CITT Design    **DATE:** 08/31/1999    **REV:** 05/01/2000    **WORKING**    **READER**    **DATE CONTEXT:**

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<b>RECOMMENDED</b>		
<b>PUBLICATION</b>		

**NOTES:** 1 2 3 4 5 6 7 8 9 10

**Doctrine**, **Training Guidance**, **Unit METL**, **CCTT Exercise Package**, **Unit Training Requirements**, **Candidate Exercise Package Review Results**

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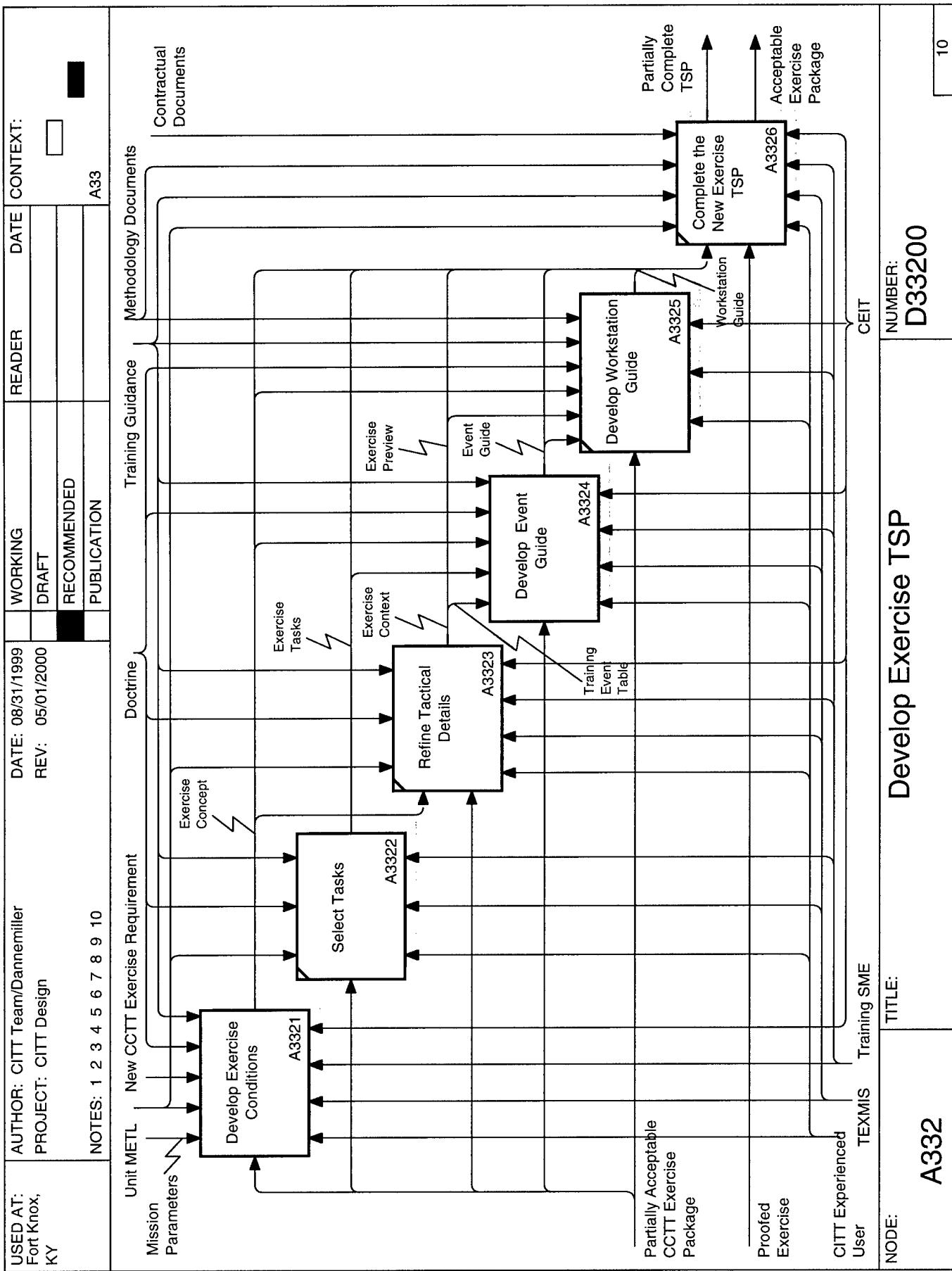
graph TD
    A31[Select an Exercise] --> A312[Evaluate a CCTT Exercise]
    A312 --> Candidate[Candidate CCTT Exercise Package]
    Candidate --> PartiallyAcceptable[Partially Acceptable CCTT Exercise Package]
    Candidate --> NewRequirement[New CCTT Exercise Requirement]
    NewRequirement --> A312
    A312 --> A31
    A31 --> A311[Select Exercise Sort Criteria]
    A311 --> A312
    A31 --> Doctrine[Doctrine]
    A31 --> Training[Training Guidance]
    A31 --> UnitMETL[Unit METL]
    A31 --> CCTTExercise[CCTT Exercise Package]
    CCTTExercise --> A311
    
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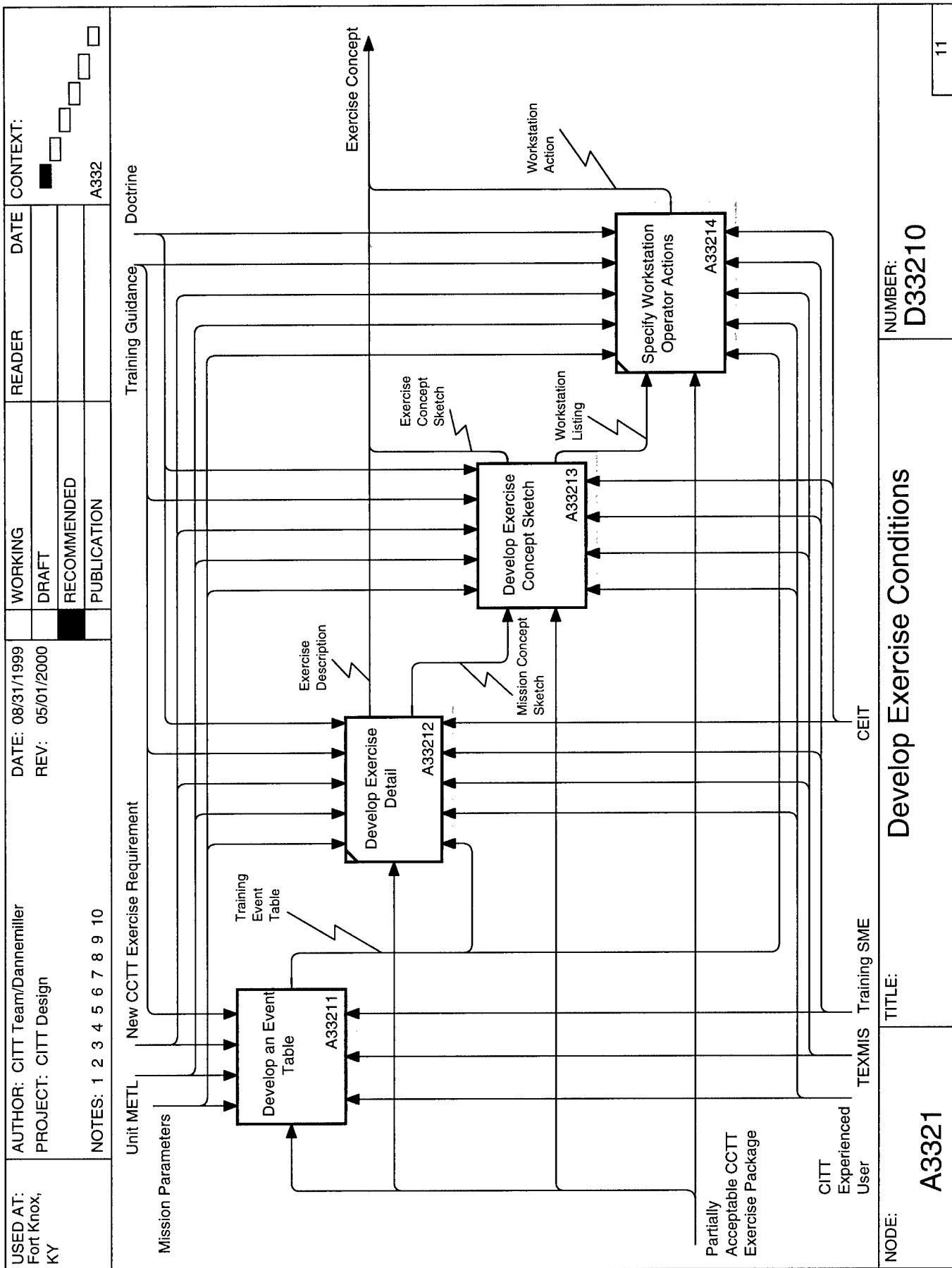
**CITT Experienced User TEXMIS**

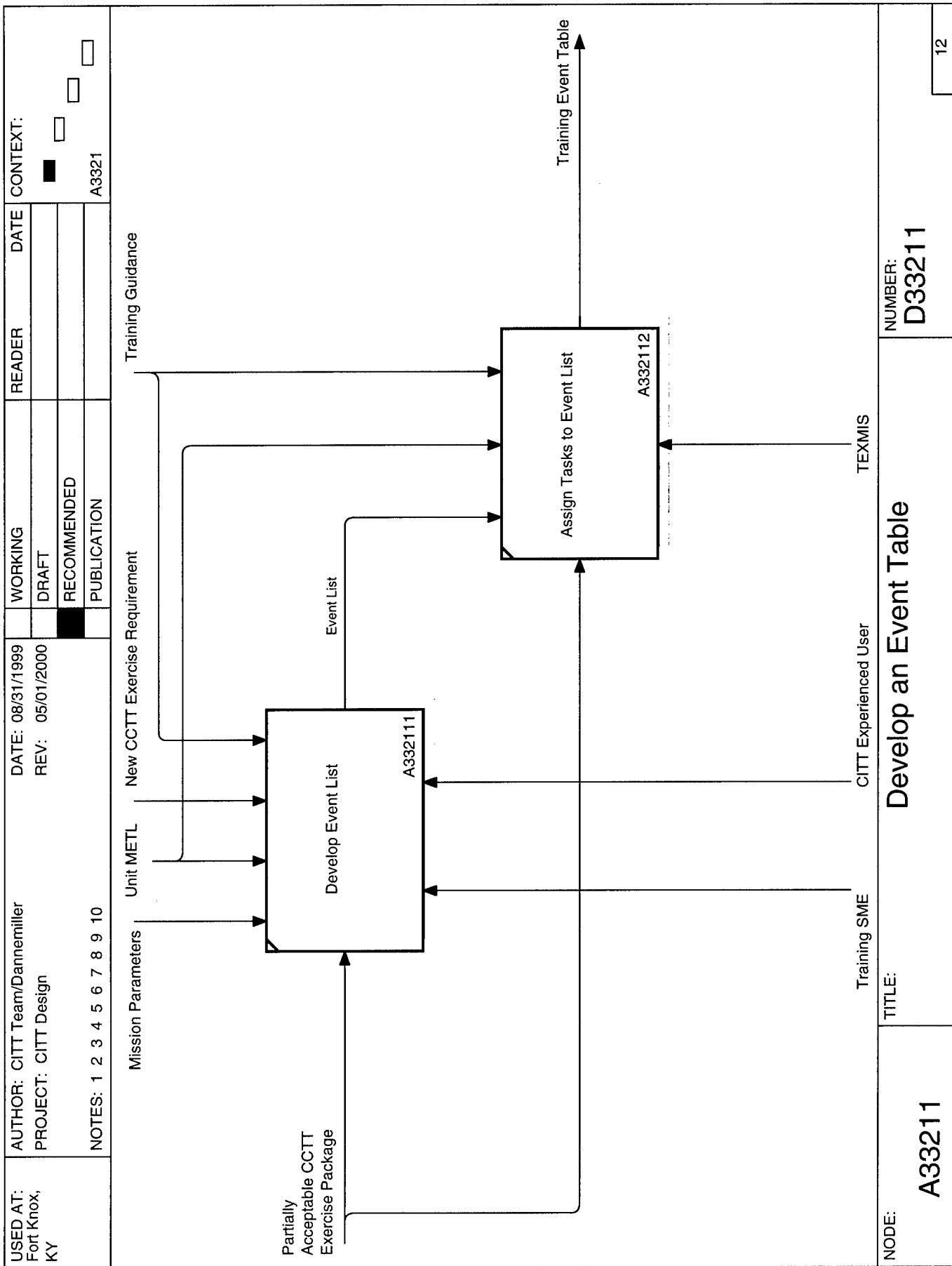
**NUMBER:** D31000

**NODE:** A31    **TITLE:** Select an Exercise









The flowchart illustrates the process of developing an Exercise Concept Sketch (ECS) starting from mission parameters and progressing through several stages of planning and validation.

**Legend:**

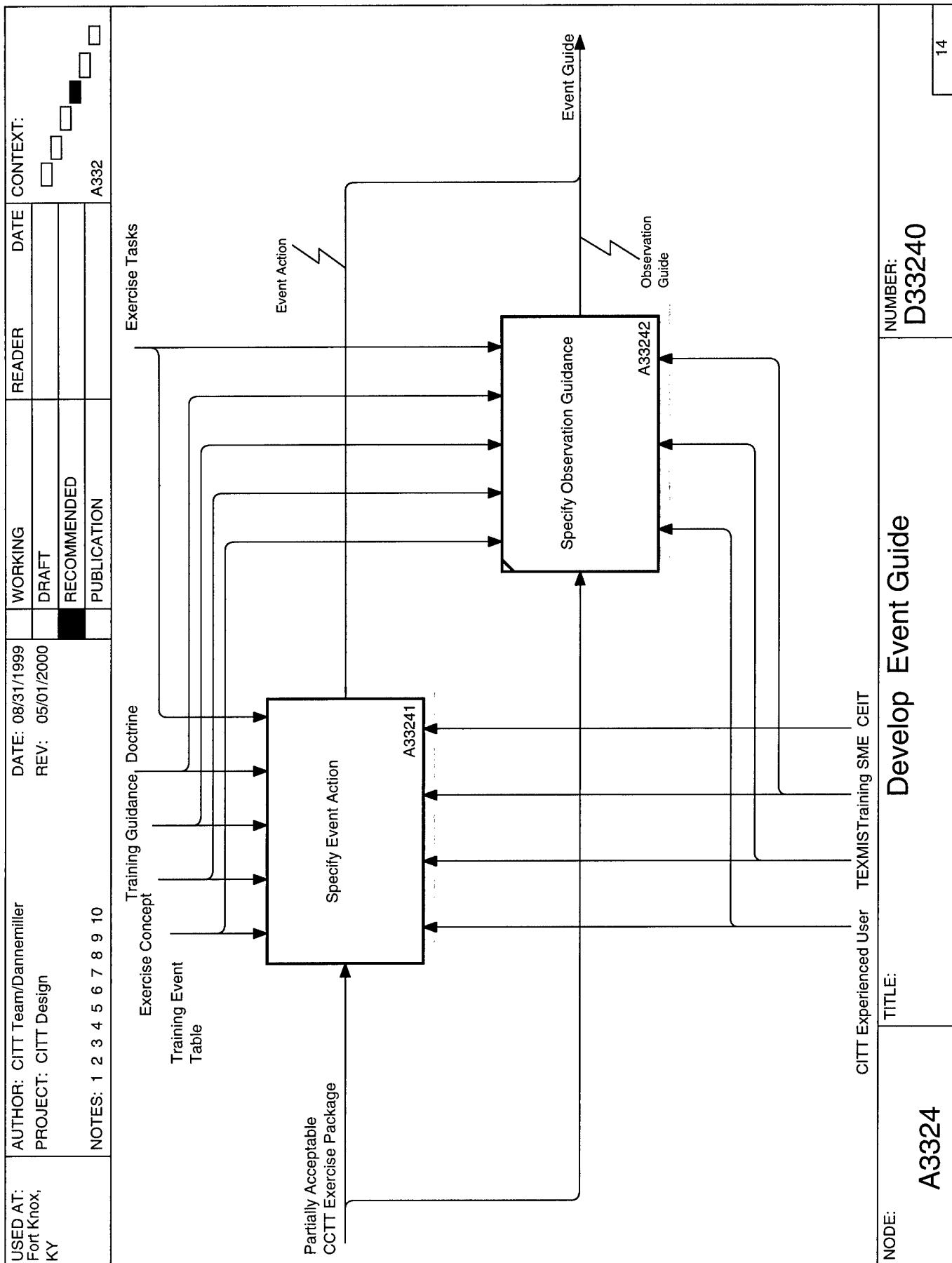
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- PUBLICATION
- A3321
- A332131
- A332132
- A332133
- A332134

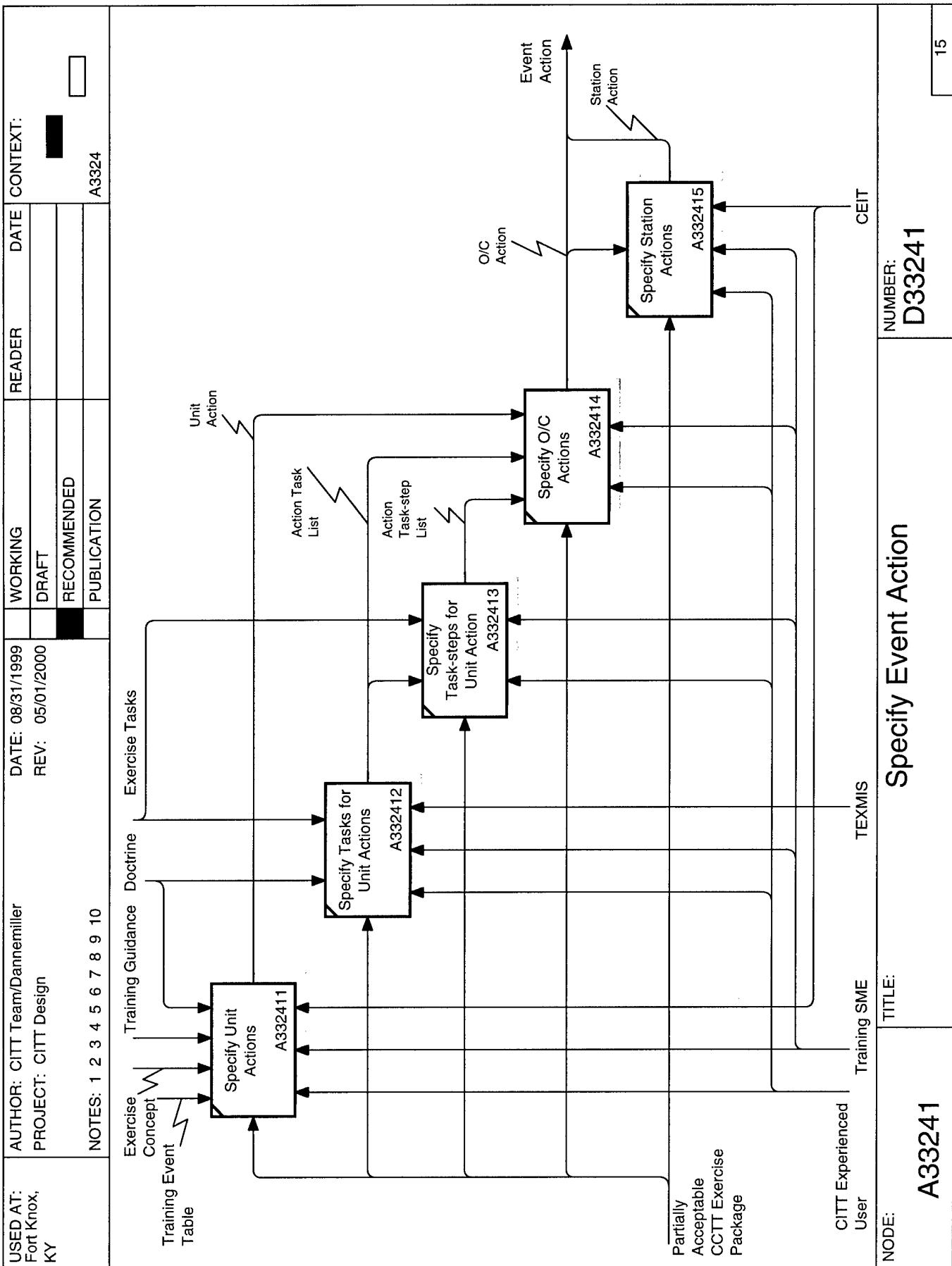
**Process Flow:**

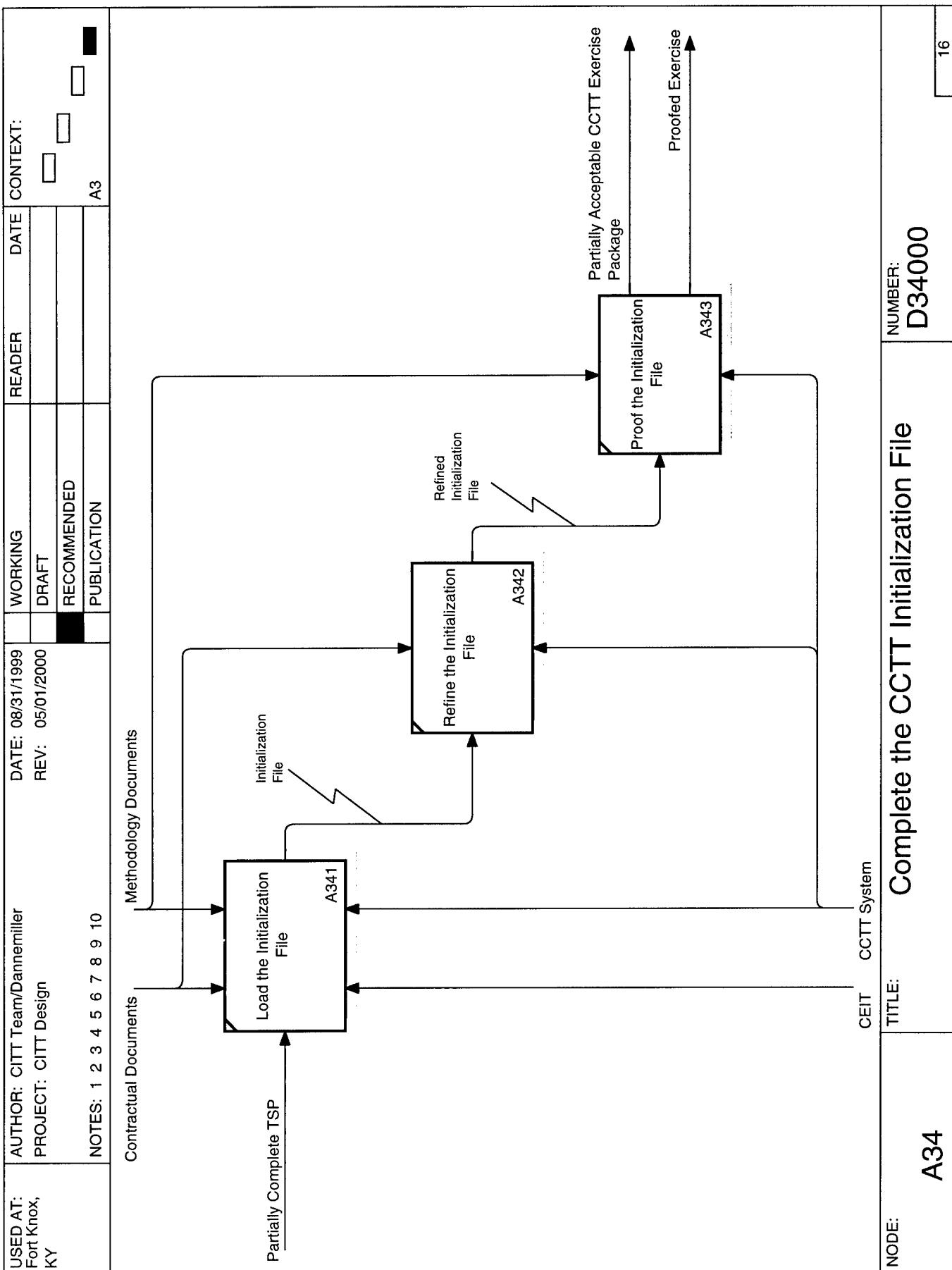
- Mission Parameters** (including **Unit METN**, **Doctrine**, **Training Guidance**, and **New CCTT Exercise Requirement**) feed into **Develop the Tactical Situation** (A332131).
- Tactical Situation** provides input to **Specify BLUFOR Locations & Disposition** (A332132).
- Specify BLUFOR Locations & Disposition** provides input to **Specify OPFOR Locations & Disposition** (A332133).
- Specify OPFOR Locations & Disposition** provides input to **Specify Commo Data** (A332134).
- Specify Commo Data** provides input to **Workstation Listing**.
- Workstation Listing** provides input to **Exercise Concept Sketch**.
- Exercise Concept Sketch** provides output to **Commo Data**.
- Commo Data** provides input to **Specify Commo Data** (A332134).
- Specify Commo Data** provides input to **Workstation Listing**.
- Workstation Listing** provides input to **Exercise Concept Sketch**.
- Exercise Concept Sketch** provides output to **Partially Acceptable CCTT Exercise Package**.
- Partially Acceptable CCTT Exercise Package** provides input to **CITT Experienced User**.
- CITT Experienced User** provides input to **TEXMIS**.
- TEXMIS** provides input to **Training SME** and **CEIT**.

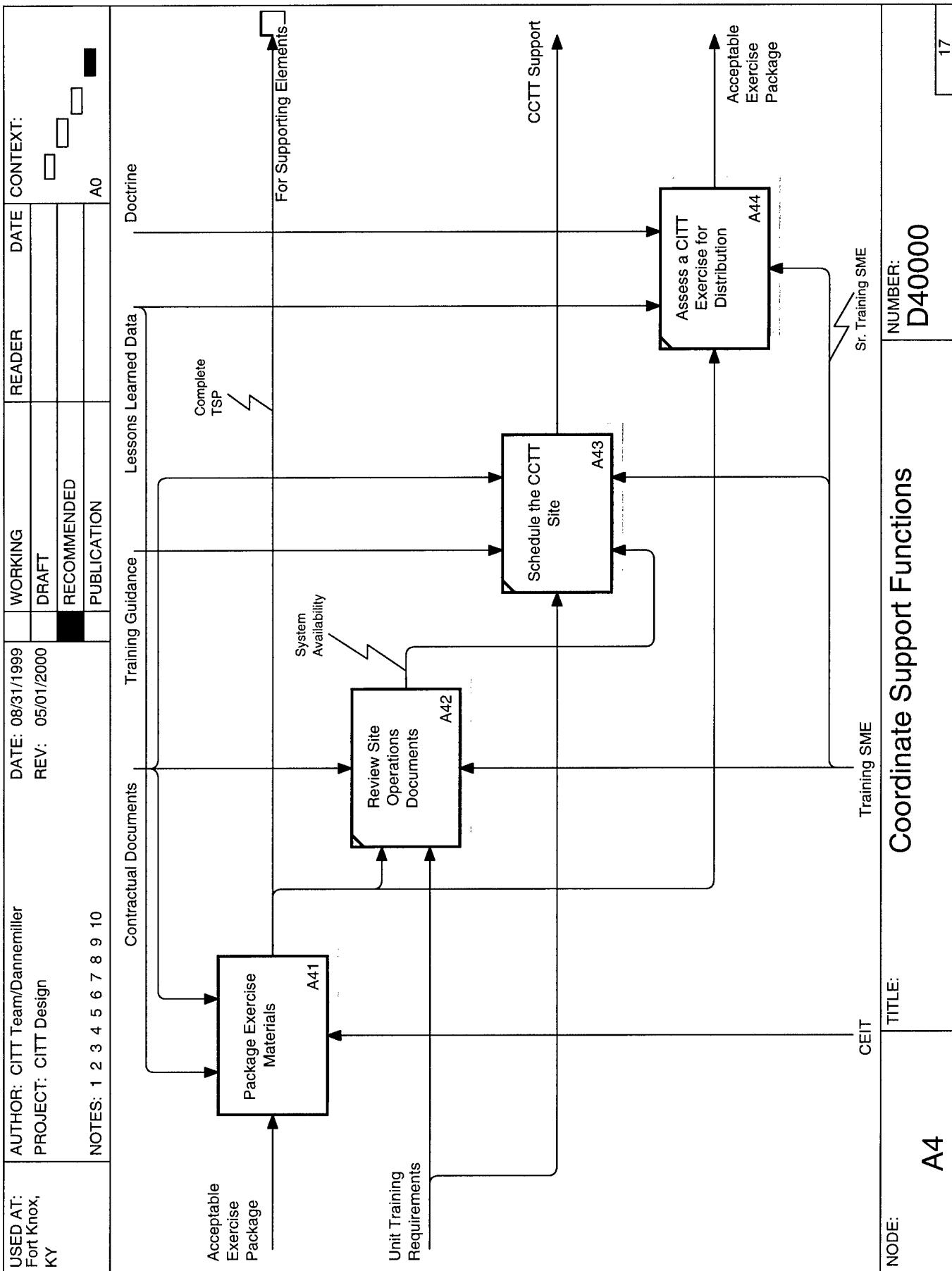
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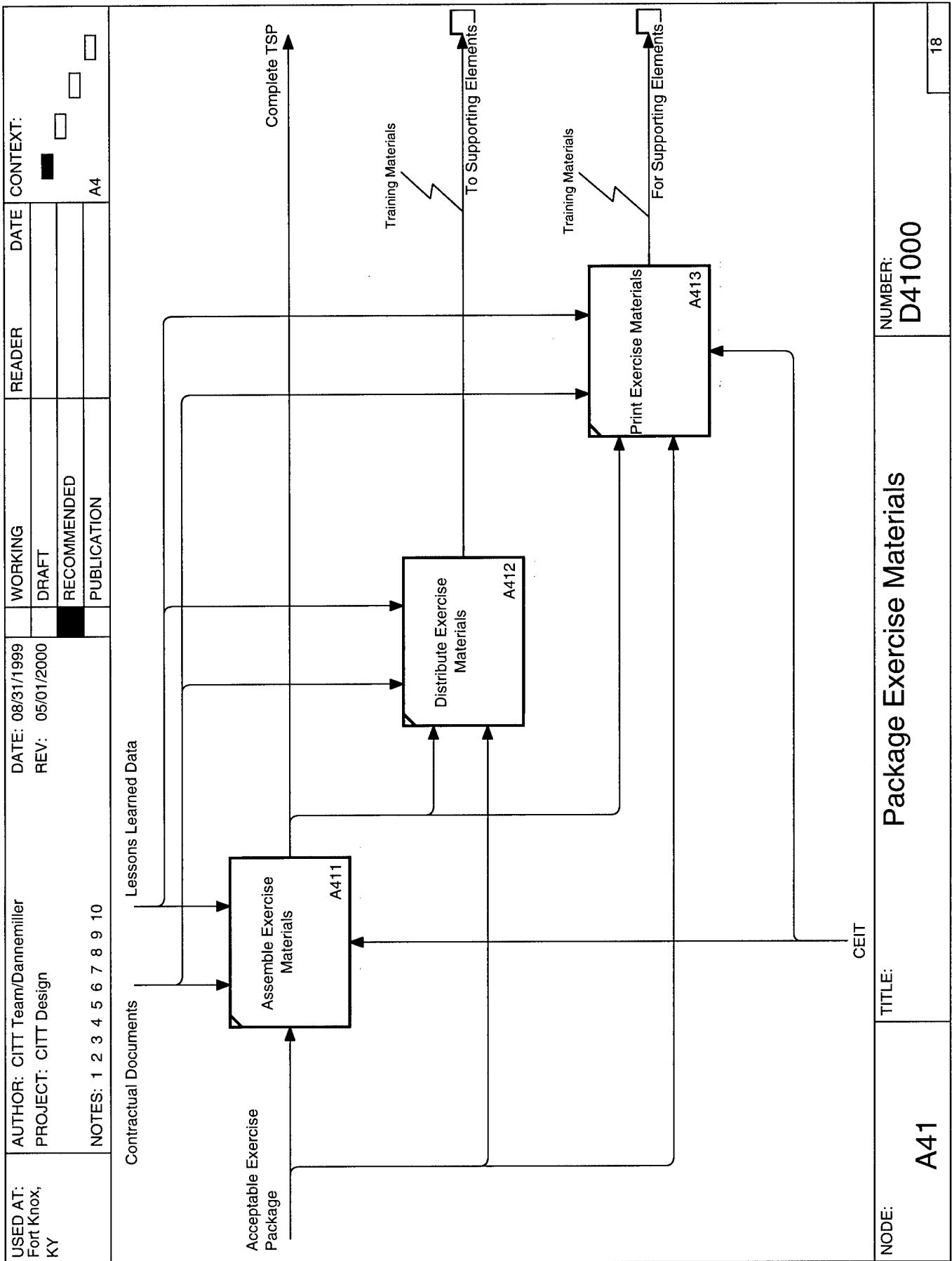
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Activity Number	Activity Name	Activity Definition	Activity Note
A0	USE THE COMMANDERS' INTEGRATED TRAINING TOOL	<p>This model represents the life-cycle activities of the CIIT Design software application in support of Army unit training using the CCTT. This is the overarching, top-level process for the creation, implementation, and management of structured, simulation-based exercises developed for use in the Close Combat Tactical Trainer. This process provides the capability for the user to review information concerning the Close Combat Tactical Trainer and the concept and methodology for developing structured training as identified in U.S. Army Research Institute Reports.</p> <p>Additionally, it serves as a tool for the review and modification of existing structured, simulation-based exercises and the creation of new exercises developed for use in the Close Combat Tactical Trainer. From the viewpoint of the unit trainer, it is comprised of four primary activities and supporting activities. Together these are the processes and activities required for the successful development of training in CCTT.</p>	<p>Is written so as to be understood by the unit trainer using the terms he or she uses in the execution of their normal duties.</p> <p>Includes the capability for 'quick access' to embedded tutorial/help features of the basic application as well as navigational assistants. Includes direct access to all subsequent activities. Learn about CIIT, Learn about CCTT, Produce Training Materials, and Coordinate Support Functions.</p>
A1	Learn about CIIT	<p>Provides a general description of the CIIT as well as how it is organized and structured.</p>	<p>Includes embedded tutorial and contextual and intelligent help features of the basic application and appended database(s) and any applications that run within or that are linked to the basic application. Is written so as to be understood by the unit trainer using the terms he or she uses in the execution of their normal duties. Includes the capability for the CIIT User to 'logon' to the CIIT, specify requirements for the use of CIIT (for education purposes and for</p>

Activity Number	Activity Name	Activity Definition	Activity Note
A11	Examine CITT	Provides information concerning CITT, its intended use, development, capabilities, and limitations. Includes general information about this system and CITT system-specific information in graduated levels (to attend to needs of new and experienced users) as well as information concerning how to train using CITT based upon existing task-based, structured methodology.	As an information piece, it provides a general description of the navigational markers within CITT. Includes information about navigational marker, page set-ups, rule sets, etc. as well as a means for the user to indicate role, purpose, function, etc. for using CITT that then sets up a "map" of CITT that appears to cover those areas user should see. Includes direct access to 'thumbnails' that describe how to navigate, learn about CITT, learn about training support packages, and learn about coordinating CITT site support. Thumbnails provide the user with access to the large module of which they are an overview. Includes direct access to a supporting tutorial.
A111	Preview CITT Capabilities	Provides a "thumbnail" of the CITT with links to appropriate sections of the Learn about CITT portion of CITT.	A function that allows the user to focus on CITT capabilities.
A112	Preview the TSP Development Methodology	Provides a "thumbnail" of structured training with links to appropriate sections of the Produce Training Materials portion of CITT.	A function that allows the user to focus on the TSP methodology.
A113	Preview Support Functions	Provides a description of each key function with links to appropriate sections of the Coordinate Support Functions portion of CITT.	A function that allows the user to focus on the external actions required to coordinate his/her training event.
A12	Navigate CITT	An interactive portion of the CITT that allows the user to specify their needs for using CITT and to activate embedded help, employ contextual and intelligent (i.e., assistants/agents) help features and tutorials. As a lookup tool, it allows the user to "fill in the blank" or "mouse	This is the starting point where new users can 'logon' to the CITT, specify requirements for the use of CITT (for education purposes and for the development of training support packages), and use an intelligent help feature/assistant to meet the trainer's

Activity Number	Activity Name	Activity Definition	Activity Note
A13	Use the Tutorial	"pick" what he's doing, wants to do, needs to see, etc. and returns a list of modules that the user should go to. User then turns his escort/guide (agent) loose to navigate through the various modules either as ordered by the agent or in a random fashion. Additionally, user can activate an embedded tutorial (CB) that describes the various components and functions found within CCTT.	Allows the user to change recommended navigational path to match their needs. Stores previous logins by individual user and returns previous session results. Allows the user to navigate CCTT as one of the following six functions: as the Commander, Training Officer/NCO, HQ/Supporting Unit player, Observer/Controller, Training Developer, or CCTT Site Staff.
A2	Learn about CCTT	Allows the user to use an embedded tool that provides quick access to the novice user in investigating the contents of and the actual use of the CCTT.	The tutorial should maximize interaction with the user and assist them in determining where next to go in the process, whether information or application-wise.
A21	Explore CCTT	Provides information concerning CCTT, its innovative development, uses, capabilities, and limitations. It includes CCTT system-specific information in graduated levels (to attend to needs of the new through experienced users) as well as information concerning how to train using CCTT based upon task-based, structured methodology.	Plain content. Includes direct reference and access to source documents or their extracts. For CCTT-specific items this includes CCTT Source documents and other items procured under the STRICOM acquisition contract. For training/training development items, this includes applicable U.S. Army regulations, references, and reports (e.g., Campbell, C. H., Campbell, R. C., Sanders, J. J., Flynn, M.R., & Myers, W. E. (1995). Methodology for the development of structured simulation-based training (ARI Research Product). Alexandria, VA: U. S. Army Research Institute for the Behavioral and Social Sciences; Campbell, C. H., Deter, D. E., & Quinkert, K. A. (1997). Guide to Development of Structured Simulation-Based Training (ARI Research Product). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences; etc.). General information on the CCTT. Should

<b>Activity Number</b>	<b>Activity Name</b>	<b>Activity Definition</b>	<b>Activity Note</b>
A22	Examine System Capabilities	including a general reference to units and echelons trained, major components of the CCTT features of the CCTT, and both generic and site specific documentation concerning existing and forecasted Basis of Issue Plan (BOIP).	include links or shortcuts to more detailed information with this module.
A23	Examine Training Capabilities	Provides detailed information of the CCTT system.	Includes use of multimedia capabilities to ensure a complete and thorough understanding of the CCTT system. Includes more detail than initial introductions, such as capabilities & functions of each; includes operator/user roles & responsibilities. Includes links to all available CCTT-specific reference materials.
A24	Learn about the Training Process	Provides an overview highlighting the types of units and echelons that can be trained in the CCTT highlighting how CCTT is designed to create a "train as you fight" philosophy.	Includes the ability for trainer to import and export TPU ratings, METL listing, Training Guidance, etc. Includes links to US Army Training Information Management Program (ATIMP) Systems and local command information sources.
A241	Learn How to Plan Training	Provides information on how to select training for use in CCTT, staffing, establishing the simulation training schedule, etc.	
A242	Learn How to Prepare Training	Provides information on coordinating for resources used within the CCTT site and external resources designed to help with training.	
A243	Learn How to Execute Training	Provides information concerning executing CCTT exercises, the role of the O/C (Trainer), Unit Support Workstations (USWS) and Site personnel while training	

Activity Number	Activity Name	Activity Definition	Activity Note
A244	Learn How to Assess Training	Includes information about the AAR, how to use the CCTT AAR WS during the conduct of an AAR, and the Post-Exercise report.	Includes links to ATIMP (for CATS strategy review?) and allows the user to do an assessment of training so that commander/leader can input this into local resources.
A25	Learn about Structured Training	Provides the user with a definition of "what" structured training is and what its associated pieces are. Provides linkages to previously referenced documents that detail the structured training methodology.	Includes the "how" and "why" the structured training approach has been used in the design and development of training available via the CCTT exercise "library" of available training exercises. Equates to "lanes training" approach. Includes further emphasis on the difficulty of Modify and Create options.
A26	Learn about CCTT Exercises	Provides an overview of the available CCTT exercises (i.e., orientation, fundamental, and mission set exercises). Includes the "why" these exercises are here, how they were designed (to include Crawl, Walk, Run), and discusses fielding and implementation strategy to include the archiving of exercises at varying levels within and external to the local installation.	Includes links to ATIMP and TEXMIS for archival purposes from Bde/Installation level archives.
A3	Produce Training Materials	Provides direct access to the forms and database(s) that allow the unit trainer to use, modify, and create structured TSPs based upon the structured, simulation-based methodology. Follows a logical step-function methodology that is derived from the Methodology for the development of structured simulation-based training (ARI Research Product 95-08) and Guide to Development of Structured Simulation-Based Training (ARI Research Product).	Is the core of the system itself. It includes contextual and intelligent help as well as tutorials designed to answer questions the unit trainer may have during the development of the training support package. Utilizes the unit trainer's embedded electronic mail (if available) for the transmission of the initialization file(s) (ASCII Text) to the supporting CCTT site.
A31	Select an Exercise	Allows the user to designate basic exercise criteria, view the available exercise data, & make decisions	Includes a rank ordering of responses based upon user's input.

Activity Number	Activity Name	Activity Definition	Activity Note
		concerning whether or not the existing exercise will be used or will need to be modified or new ones created.	
A311	Select Exercise Sort Criteria	Provides a capability that allows the user to select an exercise to view by specified criteria. Variables include selection by task identification (from MTP matched to unit type and echelon), by name (from previously developed exercise listing), and by user induced filtering by echelon (e.g., Plt, Co/Tm, etc.), unit type (i.e., AR, MX, CAV), and mission type (e.g., Offense, Defense, MTC, etc.).	Returns a rank ordered listing (closest based upon # of specifications matched) of all exercises meeting criteria based upon search type. May include exercises that have been archived to a remote server. Sort Criteria capability should include option to query archive server(s) for live updates.
A312	Evaluate a CCTT Exercise	Provides the user with the ability to evaluate the capability of the selected exercise to match their training needs by comparing unit tasks and conditions specific to exercise tasks and conditions.	Returns a rank ordered listing (closest based upon # of specifications matched) of all exercises meeting criteria based upon search type.
A32	View the Exercise	Allows user to view a stored CCTT exercise. Based upon this review, user either decides to execute the exercise selected or to modify it (via the null response arrow).	Includes "Thumbnail" of the exercise detailing METT-TC.
A33	Develop an Exercise	A detailed "how" to modify and create a structured exercise using a structured exercise template as the foundation. Includes "rule sets" (simple to complex) that reinforce the structured, simulation-based (task-based) approach to developing training for CCTT.	Exercise parameters as specified by the user help to establish the general parameters by which the embedded exercise wizard will operate.
A331	Define Mission Set Parameters	Defines the limits of the mission set (i.e., multiple exercises linked by a common tactical scenario) and is the tactical framework within which an exercise or set of exercises is created. Is detailed in the Mission Concept Sketch (or MSC) by the user using the exercise initialization tool (in this case the CCTT Exercise Initialization Tool or CEIT) embedded	Created by higher-echelon units (battalion and brigade). Helps to establish the boundaries/limits of an exercise or exercises found within a mission set. Is part of the archiving capability indicated in Learn about CCTT Exercises.

<b>Activity Number</b>	<b>Activity Name</b>	<b>Activity Definition</b>	<b>Activity Note</b>
		wizard. Includes essential tactical graphical control measures, unit locations and dispositions (BLUFOR and OPFOR), and other control measures used by CGF elements.	
A332	Develop Exercise TSP	The process whereby the exercise training support package is created/developed.	Output should be a complete package that provides for all planning, preparation, execution, and assessment materials as well as those materials required for the modification/creation of CCTT System files (plansheets & overlays). Delivery method should be via electronic link to CCTT Site web site (primary) or paper media (secondary).
A3321	Develop Exercise Conditions	Includes information found in the exercise description, the exercise concept diagram, SAF & USWS operator actions, & weather data areas of the Overview & Set-up Guidance.	
A33211	Develop an Event Table	The listing of events and the order in which the trainer wants them to occur in the new exercise.	
A332111	Develop Event List	An action whereby the user selects those events that the unit is expected to accomplish during the conduct of an exercise.	
A332112	Assign Tasks to Event List	The point at which tasks (and task-steps) are assigned to a specific event that the training developer expects the training unit to accomplish.	
A33212	Develop Exercise Detail	Affords the user with the ability to review, edit, or create the general description of events, mission, general GCM data, and expected OPFOR actions.	
A33213	Develop Exercise Concept Sketch	A graphic representation of the terrain in which the exercise will occur where units and controlling overlays are created by the trainer using standard military	

Activity Number	Activity Name	Activity Definition	Activity Note
A3332131	Develop the Tactical Situation	A description of the current situation the training unit can expect to find itself in once the simulation exercise is initialized.	Includes data concerning where the previous tactical situation (if the exercise is part of a set), the current starting locations for the training unit, the mission of both the training and any (notional) supporting units, and the potential for enemy contact.
A3332132	Specify BLUFOR Locations & Disposition	Detailed information concerning the siting and disposition of BLUFOR computer-generated forces (CGF) found within a CCTT exercise. Includes data on system type (e.g., MM, SAF, or Unit Spt WS), system identification (e.g., 11/A2-37, 2/A2-37, etc.), location (including UTM Id & 6/8/10-digit), & azimuth (i.e., hull orientation in degrees) from baseline. User can add, delete, or modify an entry. Additions or modifications are done in terms of CBT, CS, or CSS forces with translations (e.g., add Mortar Plt = add FDC to Task Organization with 6 M1064 & 2 M577, add EN Company = add CES to Task Organization with 2 Pioneer Plts & 1 A&O Plt with ..., add FA Unit = add FABTOC with 4 Batteries & HQ element, etc.).	Is accomplished using the CEIT and data is then based to the CCTT via a shared database. Includes a cognitive piece (e.g., "At this point, you should adjust the starting locations for you combat elements beginning with...followed by the CS elements... & then the CSS elements..."). Includes latest set of MCC & SAF Pure Unit Palette data for BLUFOR from CCTT System (via electronic update from CCTT Site web site to CCTT library or via SAF/MCC link).
A3332133	Specify OPFOR Locations & Disposition	Detailed information concerning the siting and disposition of OPFOR computer-generated forces (CGF) found within a CCTT exercise. Includes data on system type (i.e., SAF), system identification (e.g., 11/OIN1, 2/OIN1, OAR1, etc.), location (including UTM Id & 6/8/10-digit), & azimuth (in degrees) from baseline. Should show/display only OPFOR & White forces. User can add, delete, or	Is accomplished using the CEIT and data is then based to the CCTT via a shared database. Includes a cognitive piece (e.g., "At this point, you should adjust the starting locations for you combat elements beginning with...followed by the CS elements... & then the CSS elements..."). Includes latest set of MCC & SAF Pure Unit Palette data for BLUFOR from CCTT System (via

Activity Number	Activity Name	Activity Definition	Activity Note
		modify an entry. Additions or modifications are done in terms of CBT, CS, or CSS forces with translations (e.g., add CRP = add MIP of 3 vehicles that is either BMP or BTR-based, add FSE = add MIC is either BMP or BTR-based, add CATK Co = add Tank Company that is either T72M or T80-based, etc.).	electronic update from CCTT Site web site to CI TT library or via SAF/MCC link).
A332134	Specify Commo Data	Allows the unit trainer to specify detailed information concerning the tactical communications set-up with the CCTT exercise. Includes designation of call signs & suffixes for all players from baseline exercise as well as default frequencies.	Radio nets assigned using the CEIT and data is then based to the CI TT via a shared database. Call signs are appended to this data from within CI TT.
A33214	Specify Workstation Operator Actions	General guidance provided for each of the workstations involved in the exercise based upon the assignment of BLUFOR and OPFOR assets from the exercise concept sketch.	
A3322	Select Tasks	Allows the unit trainer to focus on the selection of specific tasks and performance standards in support of the training requirements. Tasks are obtained from the appropriate MTP via linkages to TEXMIS.	
A3323	Refine Tactical Details	Includes refinement of the data found in the tactical situation, starting locations, call signs, & frequency portions from the original exercise concept diagram.	Should be consistent with the Exercise Concept & Mission as parts of a mission set. Should include tools that allow the user to compare individual Exercise TSP to Mission Set parameters.
A3324	Develop Event Guide	Provides for an iterative process whereby the user delineates CBT, CS, & CSS actions & reactions in order to meet stated training objective(s).	
A33241	Specify Event Action	Guidance focused at the event level designed to ensure that the training unit and all supporting workstations (e.g.,	User should be able to create a single entry within the Event Action or to add and delete an entire Event Action.

<b>Activity Number</b>	<b>Activity Name</b>	<b>Activity Definition</b>	<b>Activity Note</b>
		USWS, AAR, SAF) and personnel (e.g., commanders, USWS operators, LCCS site personnel) remain focused on the tasks to trained and observed within the event during the conduct of the training exercise.	
A332411	Specify Unit Actions	A "thumbnail" of the action the training unit should execute within a particular Event Action. May include descriptive and prescriptive data. Should be to the lowest level possible consistent with the training objectives.	
A332412	Specify Tasks for Unit Actions	The action wherein the trainer designates tasks that coincide with a specific unit action within the event	
A332413	Specify Task-steps for Unit Action	Provides the unit trainer with the ability to identify task-steps from with a task that are expected to be executed and observed as a result of a unit action.	Should include descriptive as well as prescriptive data. Should be to the lowest level possible consistent with training unit objectives.
A332414	Specify O/C Actions	The action the O/C (trainer) should execute in conjunction with the unit action.	
A332415	Specify Station Actions	Provides detailed information concerning the tactical orders the CGFs will execute during the course of the exercise.	
A33242	Specify Observation Guidance	That portion of the Event Guide that provides the trainer with information concerning what events & cues are specific to the exercise. Assists the training by focusing on key events within the exercise and how best to observe them in the context of the structured exercise.	Should include guidance on the "why" & "how best to" observe an event.
A3325	Develop Workstation Guide	Allows the unit trainer to detail the inputs of all BLUFOR and OPFOR CGFs. Should be an ensemble of data garnered from the previous modules & the	Impacts on Executable Overlays & SAF (BLUFOR/OPFOR) CISSs. Derived from and feeds (if reverse engineered) the Overview, Set-up Guidance, Preview, WS

<b>Activity Number</b>	<b>Activity Name</b>	<b>Activity Definition</b>	<b>Activity Note</b>
		"wargaming process" that occurs throughout the develop activity.	Execution Guidelines, & Event Guidelines of a structured, simulation-based TSP. Includes latest CIS listing with required triggers/controls for inclusion in CITT as provided by CCTT Site web site.
A33326	Complete the New Exercise TSP	Provides the opportunity for the unit trainer to review and complete the development of all previously developed portions of the exercise training support package as well as the Mission Set Summary, the OPORD, and the Exercise Outline.	
A34	Complete the CCTT Initialization File	Details for the unit trainer how to transmit the partially complete training support package and the CCTT initialization file for refinement and proofing on the actual CCTT system.	Includes an "export and import" feature for both the initialization file and the actual training support package to ensure that the record within CITT reflects that which has been applied to the CCTT system. Must support "null" responses and non-essential entries because of the difference between the two systems.
A341	Load the Initialization File	Provides the unit trainer with the capability to assemble, transmit, and initialize the exercise that is supported by the training support package.	Includes the transmission (from CITT to CCTT) of the CCTT Initialization File.
A342	Refine the Initialization File	The process whereby the unit trainer refines the training support package initialization file to ensure that it supports training requirements.	
A343	Proof the Initialization File	Provides the unit trainer with the capability to complete the exercise by proofing the exercise training support package on the CCTT system.	
A4	Coordinate Support Functions	Provides a mechanism for the packaging of the completed training support package, the assessment of the resultant exercise for archiving purposes, and the final scheduling of the CCTT in support of a CITT-developed exercise.	Includes a web-based scheduling tool utilizing predefined forms for requesting CCTT site support. Allows the unit trainer to package and transmit files electronically to intended recipients as well as to package and print the elements

<b>Activity Number</b>	<b>Activity Name</b>	<b>Activity Definition</b>	<b>Activity Note</b>
A41	Package Exercise Materials	Provides the user with the opportunity to transmit the actual CCTT initialization file to the host site for loading into the actual system.	The transmit tool should be embedded in the CCTT and provide for the clean transmission of the electronic file to the supporting site (per the scheduled request) and acknowledgement by the site.
A411	Assemble Exercise Materials	Provides the unit trainer with the capability to assemble the previously developed exercise materials required to support the CCTT exercise training support package.	Includes the completed TSP.
A412	Distribute Exercise Materials	Provides the unit trainer with the capability to distribute electronically (via embedded electronic mail or web access) the previously developed exercise materials required to support the CCTT exercise training support package.	Includes components of the completed TSP, which are distributed based upon role.
A413	Print Exercise Materials	Provides the unit trainer with the capability to print the previously developed exercise materials required to support the exercise training support package.	Includes the completed exercise TSP.
A42	Review Site Operations Documents	Provides the user with information concerning CCTT Site standing operating procedures, scheduling requirements, etc., in a real-time mode via existing connectivity.	Should be tailored to individual sites so that a user can query CCTT and obtain information concerning a specific site.
A43	Schedule the CCTT Site	Provides the user the opportunity to schedule resources at a site to support unit training.	The scheduling tool should be embedded in the CCTT and result in a standardized request for support (down to MM and USWS as well as personnel requirements) that is then sent to the site/scheduling authority. Request is acted upon by the proponent and a message is transmitted to the requesting unit confirming/denying the request.

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A44	Assess a CITT Exercise for Distribution	Provides the user with a mechanism for archiving (storing) a CITT-based CCTT training support package. Includes recommendations for storing the actual CCTT initialization file as received from CCTT via the CEIT interface.	The archive tool should be embedded in the CITT and provide actual agents/wizards that assist the user in the process. Includes the use of servers at proponent and unit locations.

Arrow Name	Arrow Definition	Arrow Note
Acceptable Exercise Package	A CCTT exercise package that will support the required training requirements. This includes the Exercise TSP and the CCTT Initialization File. The Exercise TSP is the basel document that includes all of the information necessary (i.e., preparation, planning, execution, and assessment documents) to conduct and support training. The CCTT Initialization File is an ASCII-text file that includes all data fields required to load and initialize a CCTT exercise. It can be transmitted to the host CCTT Master Control Console via floppy disk or electronically.	
Action Task List	A listing most often associated with a CCTT Exercise TSP Event Guide that provides a list of MTP tasks applicable to the echelon, unit type, and mission type expected to occur during the course of the exercise.	
Action Task-step List	A listing most often associated with a CCTT Exercise TSP Event Guide that provides a list of MTP task-steps within a particular task applicable to the echelon, unit type, and mission type expected to occur during the course of the exercise.	
Assessment Phase Familiar User	A CCTT User who has learned how to assess a structured, simulation-based training.	
Candidate CCTT Exercise Package	An existing CCTT exercise package that appears, based on the initial filtering, to support the training requirements and must be reviewed to determine acceptability.	
Candidate Exercise Package Review Results	The determination of the acceptability of a candidate CCTT exercise package to support the training requirements.	
CCTT Exercise Familiar User	An individual who has completed the Learn about CCTT Exercise and has the knowledge required to select, view, modify, or create an exercise based upon their understanding of existing exercises embedded in the CCTT.	
CCTT Exercise Package	The consolidated products from JITT intended to support one CCTT exercise.	
CCTT Familiar User	An individual who has completed the Explore CCTT module and knows the basic history and systems configuration of a typical CCTT site.	Examples of training include formal training from CCTT Site personnel and/or EDUCCATT training.
CCTT Knowledgeable User	A CCTT User (as defined previously) who has received training on a specific piece of equipment or function found within the CCTT.	Typically, the CCTT SME can be expected to bring source documents,
CCTT SME	An individual who has expert knowledge on the Close Combat Tactical Trainer (CCTT).	

Arrow Name	Arrow Definition	Arrow Note
CCTT Support	Inputs and Outputs (in both electronic and paper form) that facilitate links to and from sources external to the CCTT (e.g., printed reports and TSP materials, links to CCTT Site Web sites, links to and from ATIMP Systems).	expert knowledge, et al. to any process/activity in which they are involved.
CCTT Support Personnel	Personnel assigned to support a CCTT-based exercise. These persons may be members of the supporting site staff or a member of a troop unit detailed to support a planned exercise.	Under the current site configuration, site staff members man the Semi-Automated Forces (SAF) and AAR workstations while soldiers typically occupy and execute mission support using the Unit Support (or Operations Center) Workstations during the conduct on an exercise. In the future, workstation capabilities are expected to be united under single control with SAF serving as the host for all non-manned module entities.
CCTT System	The virtual training system comprised of: manned modules (simulators), unit support workstations & SAF (simulations), control workstations (MCC/MC/AAR), & any associated hardware and software.	MM include M1A1, M1A2, M2A2/M3A2, M113A3, M981, HMMWV, & DIM and associated H/W & S/W. Unit Spt WS include Combat Engineers, CTCP, FABTOC, FDC, FSE, TACP, & UMCPC and their associated H/W & S/W. SAF WS include BLUFOR & OPFOR and their associated H/W & S/W. MCC/MC include the user interface, associated netware, and their associated H/W & S/W required to run, monitor, and maintain the CCTT System. AAR WS includes the OTW sub-component, the PVD, associated radios, storage devices (HDD & tape), and their associated H/W & S/W.
CCTT System Familiar User	An individual who has completed the Examine System Capabilities module and knows what components comprise the CCTT system. Additionally this user has detailed knowledge of individual system capabilities.	An individual who has completed the Examine Training Capabilities module and knows how components and systems
CCTT Training Familiar User		

Arrow Name	Arrow Definition	Arrow Note
CEIT	<p>found within the CITT site can support their training requirements.</p> <p>An add-in to Microsoft PowerPoint designed to allow the training developer to build a CITT Initialization File with the appropriate data structure and fields required to support CITT. Additionally, it interacts with CITT via a shared database to pass information derived from the development of the PowerPoint-based initialization file to the CITT.</p>	<p>In its current form, it includes the ability to designate all forces to be replicated in CITT as well as all graphic control measures required for the development of a CITT exercise file. In its final form (circa release of 03/31/2000), it will include the ability to initialize the CITT based upon the original PowerPoint file developed file.</p>
CITT Experienced User	<p>The individual or individuals using CITT to produce CITT exercise packages and are familiar (as defined by the CITT-Familiar User definition) with the CITT System.</p>	
CITT Familiar User	<p>Any user (see CITT User) of the Commander's Integrated Training Tool (CITT) who has information concerning either the CITT itself or a product generated by CITT and can apply it to another module within CITT or to the CITT System.</p>	<p>Products generated can include Exercise TSP, historical documents, a particular knowledge of a specific function or feature, etc.</p>
CITT Knowledgeable User	<p>The individual or individuals using CITT to produce CITT exercise packages and are familiar (as defined by the CITT-Familiar User definition) with the CITT System.</p>	
CITT User	<p>Any user of the Commander's Integrated Training Tool (CITT). Can be any unit trainer, commander, leader, training analyst, &amp; CITT Site personnel. May also be the casual user ("web surfer") who happens to find the distributed (Internet) version of CITT.</p>	<p>The casual CITT User can be expected to be a transient within CITT (i.e., once the system queries them for information they do not possess, they will leave CITT). The normal CITT User is expected to be a trainer familiar with U.S. Army operations and training and is using CITT for a specific purpose. Viewpoint for the current model is from this perspective.</p>
Commo Data	<p>A listing that includes information concerning frequencies by unit and call signs of training unit personnel and the radio designations to which frequency data will be applied.</p>	
Complete TSP	<p>An exercise package that has been proofed using CITT and requires some adjustment to either the initialization file or the actual TSP (or both) before it can be considered an Acceptable Exercise Package.</p>	
Contractual Documents	<p>Any document that specifies requirements that will be completed by the appropriate contractor team when executing work under</p>	<p>Examples include: system specification documents, inter-operability documents,</p>

Arrow Name	Arrow Definition	Arrow Note
Demos	contract to the U.S. Government. Applies to contractors for the CCTT System as well as for the CCTT Team and associated endeavors. In some cases, the CCTT SME or Training SME brings these documents to the activity being modeled.	SOWs, RFPs, Research Reports/Products, etc.
Doctrine	A series of 12 computer-based, multimedia presentations built to support the original Structured Training for Units in the Close Combat Tactical Trainer (STRUCC TT) Project. These presentations, packaged using Authorware by Macromedia, are exemplars for tank and mechanized infantry platoons each executing the 6 platoon day-only exercises. Also referred to as Demonstrations of Performance.	The fundamental principles by which military forces guide their actions in support of national objectives. Is authoritative but requires judgement in application.
EDUCCATT	A computer-based training system designed to provide individual training to MOS-qualified individuals on the operation and use of designated Combat, Combat Support, and Combat Service Support workstations found within the CCTT.	The O/C, Unit, or Workstation Actions associated with cueing an event within a training exercise.
Event Action		
Event Guide		During the development of a TSP, the Event Guide is an ever changing/evolving document. During the execution of a TSP, the Event Guide is a loose script that can be adjusted to accommodate fluctuations in a structured exercise that will naturally occur. Includes general guidance for the O/C, as well as Unit Actions (for the O/C to use as a mnemonic device), and Workstation Actions.
Event List	A listing that contains the trainer's entry what events will be included in an exercise and a description of where or how the event can be observed.	
Execution Phase Familiar User	A CCTT User who has learned how to execute a structured,	

Arrow Name	Arrow Definition	Arrow Note
Exercise Concept	simulation-based training exercise.	
Exercise Concept Sketch	A short narrative developed during the planning process that contains the Exercise Description, Exercise Concept Diagram, and Workstation information from the Exercise Outline.	
Exercise Context	A diagram or rendering of the exercise area (typically an actual or sketch map) with both operational (i.e., standard military) and expository graphics (e.g., designed to provide marginal data to assist in understanding the intent of the exercise).	
Exercise Description	A short narrative that establishes the tactical situation information. Exercise Context allows for the user to designate the starting location information for manned modules, BLUFOR and OPFOR SAF vehicles, and basic communications data for an exercise.	
Exercise Preview	A short narrative that establishes the general context in which the exercise is set to occur and the primary and secondary missions of the training unit.	
Exercise Sort Criteria	An information set designed to be used by a unit trainer to detail data concerning the tactical situation, tasks and task-steps (from the appropriate MTP), battle rehearsal capabilities, starting locations, and radio call-signs and frequencies for a unit that will be conducting an exercise.	
Exercise Tasks	A function within the CCTT that allows the user to select and review a specific exercise embedded within the CCTT using one of the following modes: by task (to include filtering by unit echelon and type), by common name (e.g., PADF3-2CCS), or by specifying unit echelon, unit type, and unit mission	
Initialization File	A CCTT exercise file that was originally built using the CEIT (from within CCTT) that has been successfully transferred to the CCTT system and initialized for proofing on the actual TADSS.	
Lessons Learned Data	Information that draws upon the collective lessons learned from previous contract projects concerning how to construct, execute, and assess structured, simulation-based training.	
Location & Disposition	A detailed listing containing start data for any element replicated in CCTT.	In the case of a Manned Module, includes unit type, identification, location azimuth (hull & turret), status of fuel & ammo (type and quantity). For all other elements (i.e., CGFs) includes unit type, unit echelon,

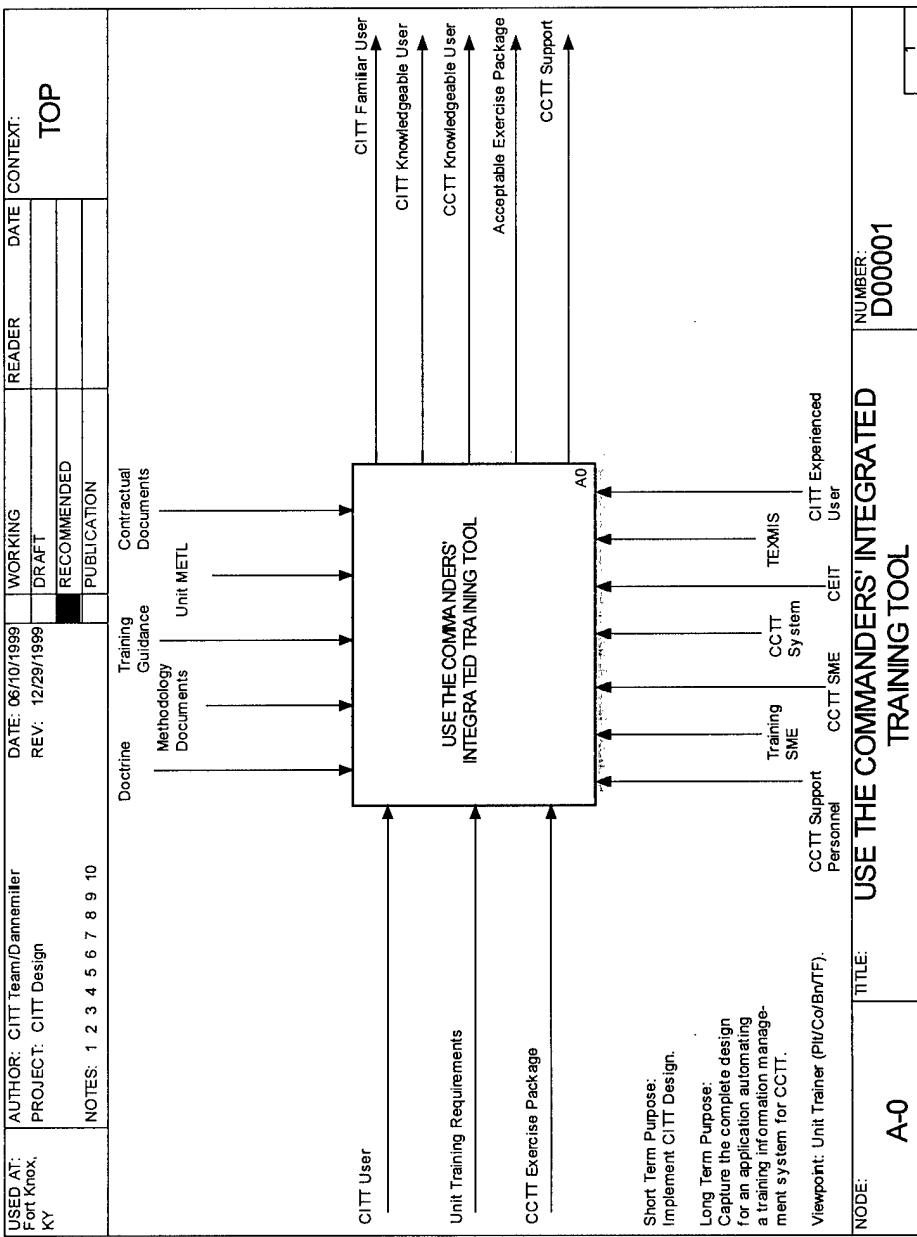
Arrow Name	Arrow Definition	Arrow Note
Methodology Documents	Any of three documents generated to describe the design of structured, simulation-based training. Specifically, they are: Methodology for the Development of Simulation-based Training, US Army Research Institute, 12/94; no research report #; Report on the Expanded Methodology for the Development of Structured Simulation-based Training Programs, US Army Research Institute, 06/97, Research Report #1710; & Guide to Development of Structured Simulation-based Training, US Army Research Institute, 06/97, Research Product #97-14.	Includes filtering tools used to develop a training scenario (modified from previous or newly created). Typically these include the unit echelon, type, & mission.
Mission Concept Sketch	The tactical framework within which an exercise or set of exercises is created.	These establish the requirements and are not simply the exercise products themselves. Any time a "new" (complete or modified) package is created, it is always driven by the training requirements.
Mission Parameters	A set of training requirements that is used to create a new exercise package.	
New CCTT Exercise Requirement		
O/C Action	Specific guidance to the observer/control that serves as a storyboard for the Exercise TSP. It includes a narrative for the O/C to use in conjunction with the unit actions, action tasks, workstation actions, and observation guidance.	
Observation Guide	A listing used by the unit trainer in documenting specific activities the O/C should observe from the training unit during the conduct of a specific task or task-step within an exercise.	
Partially Acceptable CCTT Exercise Package	This existing CCTT exercise package is selected during the review as containing materials that partially support the specified CCTT training requirements. It will be modified to create a "new" exercise package that will support the specified training requirements.	Includes a template for the use in the creation of a wholly new exercise using the "Create" option.
Partially Complete TSP	A completed CCTT-based exercise file that has not been proofed on the CCTT.	
Planning Phase Familiar User	A CCTT User who has learned how to plan for structured,	

Arrow Name	Arrow Definition	Arrow Note
Prep Phase Familiar User	simulation-based training. A CITT User who has learned how to prepare for a structured, simulation-based training exercise.	
Proofed Exercise	A completed CITT-based exercise file that has been proofed on the CCTT.	
Refined Initialization File	A CCTT exercise file that was originally built using the CEIT (from within CITT) that has been successfully transferred, initialized, and proofed on the actual CCTT system.	
Sr. Training SME	An individual who has expert knowledge on training, training systems, and the structured training methodology in the U.S. Army.	Typically a branch-qualified LTC who has been exposed to CCTT, CITT, and the ADTDL who serves as the approving authority for the migration of CITT-developed exercises to the CCTT exercise repository.
Station Action	Specific guidance found in the Workstation Execution Guide and the Exercise TSP Event Guide that specifies the exercise timeline and interactions the operator is expected to execute in support of the training unit.	
Structured Training Familiar User	An individual who has completed the Learn about the Structured Training module and can apply the 4-phase approach to structured, simulation-based methodology in the development of training support packages.	
System Availability	A result of the determination made by weighing a particular exercise's requirements against the availability of assets within a supporting CCTT site.	
Tactical Situation	A short narrative, generally derived from the tactical OPORD, that details the context within which the exercise will occur. Includes data on friendly and enemy elements.	
TEXMIS	An automated training information system which allows branch proponent schools, units and Department of the Army training information systems to share common data. It utilizes a central repository of readily available critical training information.	For Design, links to TEXMIS are expected to be actual. For prototypes, the link is expected to be conceptual.
Training Event Table	A listing that includes an event, a task designated by the trainer, and a description of the expected action.	
Training Guidance	Instructions from a higher authority on what training should be completed by a unit prior to the execution of the next major training event to ensure success in that training event.	
Training Materials	The consolidation of those items required for the conduct of	Typically this includes all pre-execution,

Arrow Name	Arrow Definition	Arrow Note
Training Process Familiar User	training with the CCTT.	execution, and post-execution materials (to include the actual CCTT initialization or reader files) that will be used by the training unit, the supporting unit(s), and the supporting CCTT site staff.
Training SME	An individual who has completed the Learn about the Training Process module and can apply the structured, simulation-based methodology in planning, preparing, executing, and assessing a scheduled CCTT training exercise.  An individual who has expert knowledge on training in the U.S. Army.	This individual typically uses military maps, overlays, references (e.g., FMs, STs), etc. when developing, conducting, or assessing training.
Unit Action	A listing found in the Exercise TSP Event Guide that delineates the exercise timeline and interactions the unit is expected to execute. It is used in conjunction with the O/C Actions, Workstation Actions, and ARTEP Task/Task-step listings.	
Unit METL	A unit's mission essential task list as identified by higher training guidance and its own assessment of its abilities to accomplish its combat mission.	
Unit Training Requirements	The training factors to be supported by a CCTT exercise. These will translate into a supporting exercise package.	Examples include tasks (to be trained), terrain, mission, organization (of training unit and supporting elements), enemy, etc.
Workstation Action	A brief description in the Event Guide that provides a listing of the actions the workstations will perform in relation to a specific event in the exercise. In the case of a BLUFOR or OPFOR workstation it also identifies what Combat Instruction Set a specific SAF unit will perform.	
Workstation Guide	A listing that provides specific guidance to workstation operators concerning the exercise focus, guidance specific to their workstation and elements controlled by it, starting locations for forces generated by the specific workstation and specific rules of engagement.	Also referred to as the Workstation Execution Guide.
Workstation Listing	The delineation of workstations required to support a particular CCTT-based exercise as determined by the training developer as part of the development of the tactical situation.	

## **Appendix B**

### **Functional Description**



## A0. Use the Commander's Integrated Training Tool.

This is the overarching, top-level process for the creation, implementation, and management of structured, simulation-based exercises developed for use in the Close Combat Tactical Trainer. This process provides the capability for the user to review information concerning the Close Combat Tactical Trainer and the concept and methodology for developing structured training as identified in U.S. Army Research Institute Reports (get actually reference Ids). Additionally, it serves as a tool for the review and modification of existing structured, simulation-based exercises and the creation of new exercises developed for use in the Close Combat Tactical Trainer. It is comprised of four functional architectural processes and supporting activities. Together these are the processes and activities required for the successful completion of structured training in CCTT.

The short-term purpose of this model is to detail the objective CCTT design.

The long-term purpose of this model is to capture a complete design for an application that can be built at a later time. This application is designed and intended to automate the training development process for the CCTT. The goal is to provide training developers with a simple yet powerful tool that allows them to develop task-based training following a common rule-set.

As such, the focus (or viewpoint) of this model is on the unit trainer as the training developer. This includes unit trainers at the platoon, company/team, battalion, and task force levels.

This document assumes minimal understanding by those using it of the basic TDEF& modeling process. Included in this document are For-Exposition-Only (FEOs) diagrams with supporting narratives along the margins of each FEO and a FEO Input, Control, Output, and Mechanism (ICOM) or arrow dictionary.

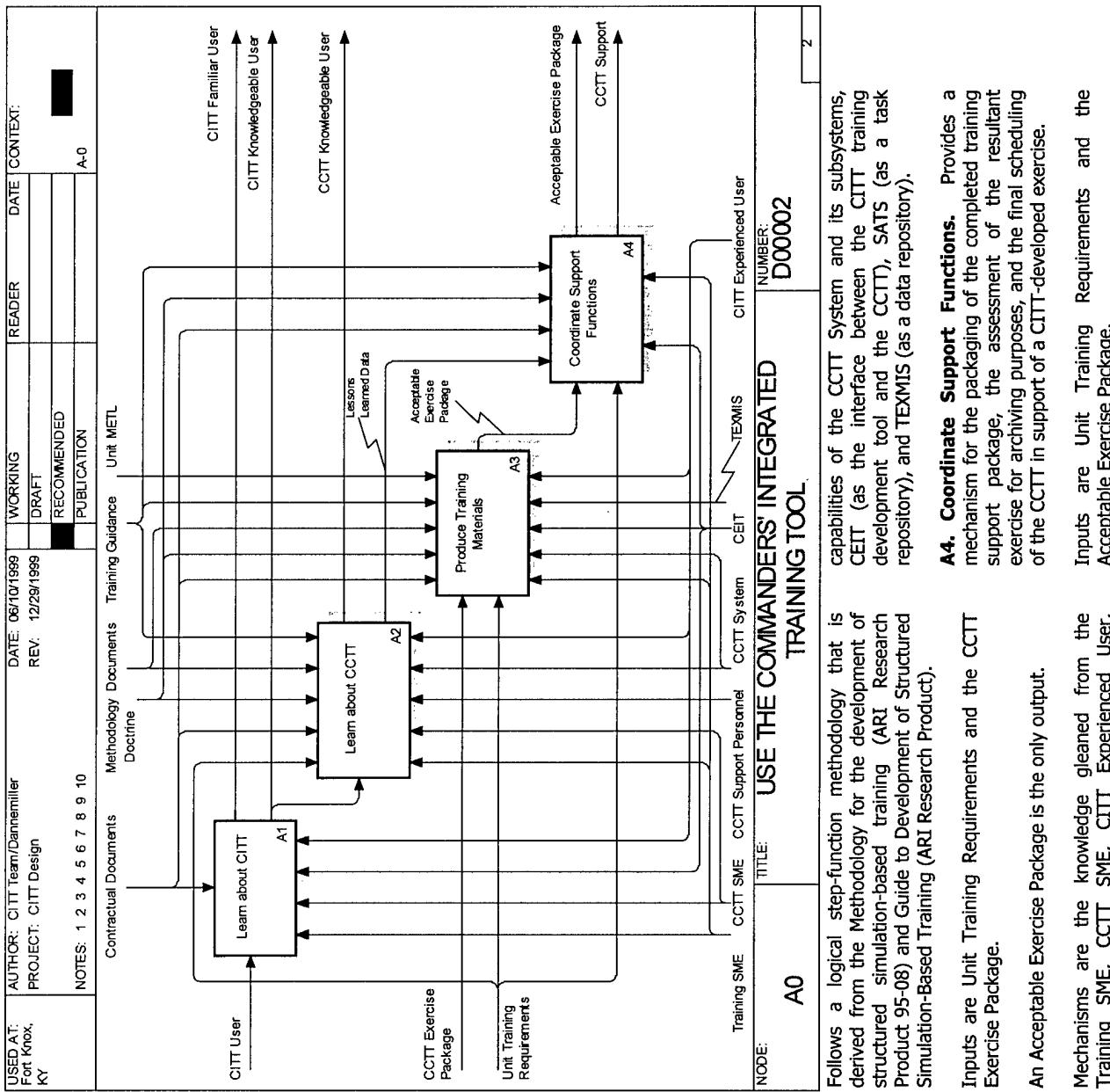
**ICOMs that bound (or limit this model) are as indicated:**

**Inputs.** The inputs are the CCTT User, Unit Training Requirements, and a CCTT Exercise Package.

**Controls.** The process controls are Doctrine, the Methodology Documents, any Training Guidance, the Unit Mission Essential Task List (METL), and any Contractual Documents that detail the execution of CCTT site support and the contract under which the CCTT was developed. These remain constant throughout the model. Where appropriate, notations concerning the addition of new controls to an activity (as a result of a previous activity's output) will made.

**Outputs.** The outputs are a CCTT Familiar User, a CCTT Knowledgeable User, a CCTT Acceptable Exercise Package, and CCTT Support.

**Mechanisms.** The mechanisms are the collective knowledge of CCTT Support Personnel, Training SMEs, and CCTT SMEs as well as the CCTT System, TRADOC Executive Management and Information System (TEXMIS), the CCTT Exercise Initialization Tool, and the CCTT Experienced User.



## A0. Use the Commander's Integrated Training Tool.

**A1. Learn About CITT.** Provides a general description of the CITT as well as how it is organized and structured. "Why" includes references to CITT requirements (as delineated by SOW) as well as the "logical" approach to the architecture of the system.

The novice CITT User is the only Input.

Outputs are a CITT Familiar User (one who understands the basic functions and capabilities of the CITT) and a CCTT Knowledgeable User (one who understands CCTT and can use it to obtain information and generate a structured training exercise).

Mechanisms are the knowledge gleaned from the Training SME, CCTT SME, the CETT and the CITT Experienced User when viewed as knowledge sets and sources embedded within the CCTT application.

**A2. Learn about CCTT.** Provides the user with information concerning CCTT, its innovative uses, development (thumbnail description), capabilities, and limitations. Includes CCTT system-specific information in graduated levels (to attend to needs of casual & specialized users) as well as information concerning how to train using CCTT based upon task-based, structured methodology.

The CCTT Knowledgeable User is the only input.

Outputs are a CCTT Knowledgeable User and Lessons Learned Data (in that the CCTT application provides a repository for lessons learned during the development of training exercises as well as after a training exercise created in CCTT has been executed in CCTT).

Mechanisms are the knowledge gleaned from the Training SME, CCTT SME, CCTT Experienced User, capabilities of the CCTT and its subsystems, CETT (as the interface between the CCTT training development tool and the CCTT), and SATS (as a task repository).

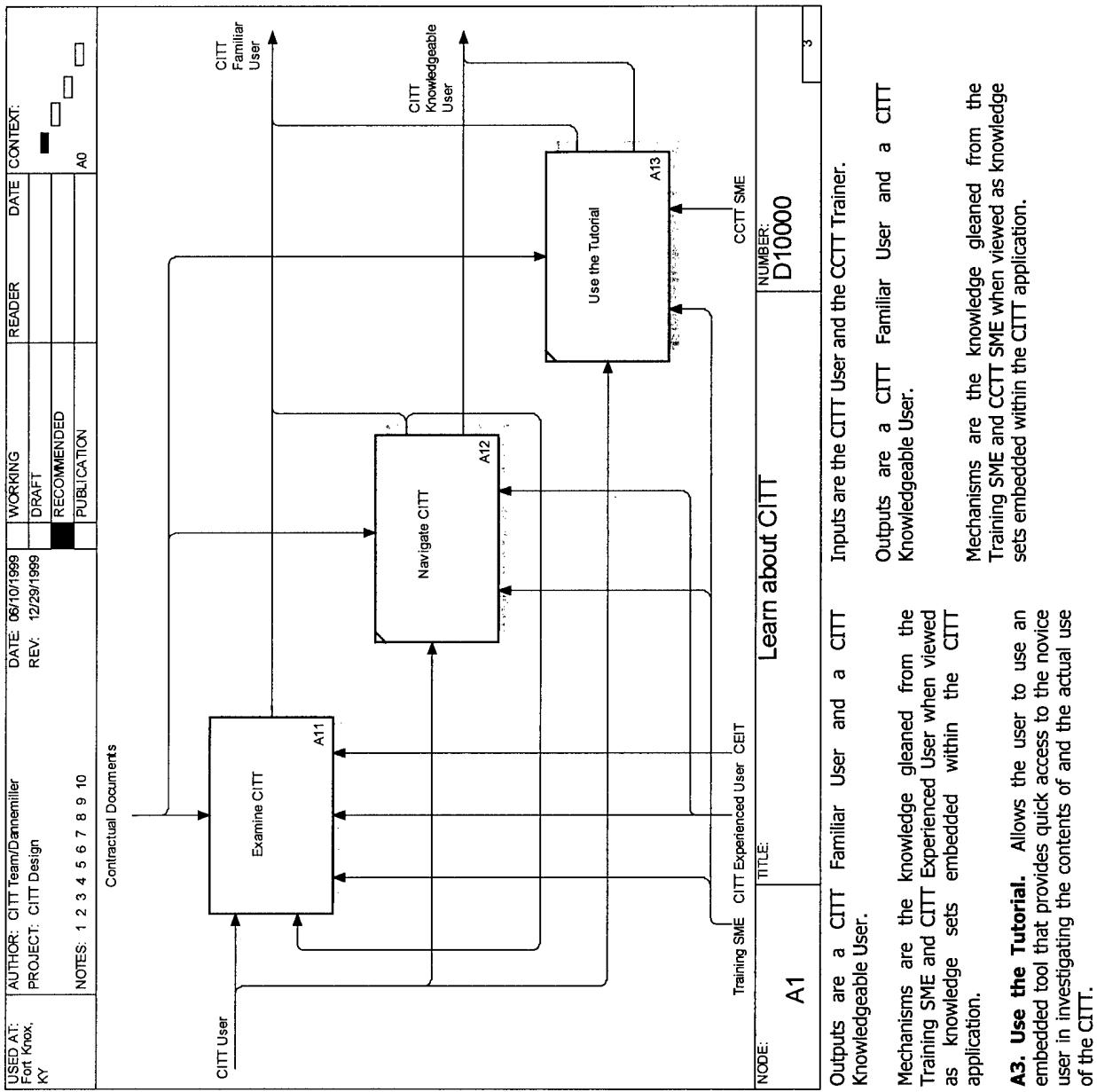
**A3. Produce Training Materials.** Provides direct access to the forms and database(s) that allow the unit trainer to use, modify, and create structured TSPs based upon the structured, simulation-based methodology.

**A4. Coordinate Support Functions.** Provides a mechanism for the packaging of the completed training support package, the assessment of the resultant exercise for archiving purposes, and the final scheduling of the CCTT in support of a CITT-developed exercise.

**AØ. Use the Commander's Integrated  
Training Tool (continued).**

Outputs are an Acceptable Exercise Package and CCTT support.

Mechanisms are CETT (as the interface between the CITT training development tool and the CCTT) and the Training SME.



## A1. Learn about CCTT.

**A1.1. Examine CCTT.** Provides information concerning CCTT, its intended use, development, capabilities, and limitations. Includes general information about this system and CCTT system-specific information in graduated levels (to attend to needs of new and experienced users) as well as information concerning how to train using CCTT based upon existing task-based, structured methodology.

Inputs are the CCTT User and the CCTT Familiar User who may have examined another aspect of CCTT prior to the Examine CCTT module.

A CCTT Familiar User is the only output.

Mechanisms are the knowledge gleaned from the Training SME, CCTT SME, and CCTT Experienced User when viewed as knowledge sets embedded within the CCTT application.

**A2. Navigate CCTT.** An interactive portion of the CCTT that allows the user to specify their needs for using CCTT and to activate embedded help, employ contextual and intelligent (i.e., assistants/agents) help features and tutorials. As an information piece, it provides a general description of the navigational markers within CCTT. Includes information about navigational markers, page set-ups, rule sets, etc., as well as a means for the user to indicate role, purpose, function, etc. for using CCTT that then sets up a "map" (which can also be activated via an embedded assistant) of CCTT that appears to cover those areas user should see.

As a lookup tool, it allows the user to "fill in the blank" or "mouse pick" what he/she is doing, wants to do, needs to see, etc., and returns a list of modules that the user should go to. User then turns his escort/guide (assistant) "loose" to navigate through the various modules either as ordered by the agent or in a random fashion. Additionally, user can activate an embedded tutorial (CBI) that describes the various components and functions found within CCTT and then decide how best to navigate CCTT in order to accomplish his/her objective.

The CCTT User is the only input.

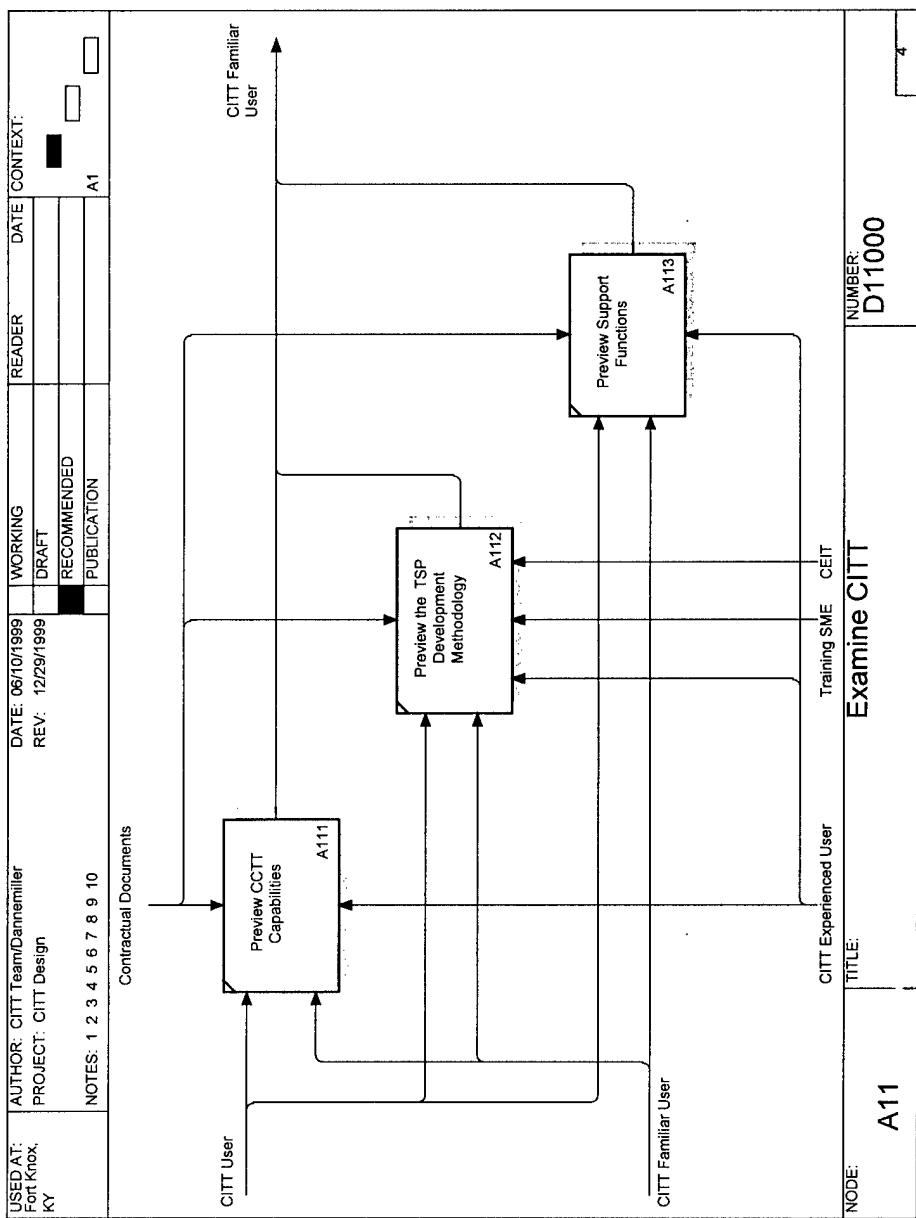
**Outputs** are a CCTT Familiar User and a CCTT Knowledgeable User.

**Mechanisms** are the knowledge gleaned from the Training SME and CCTT Experienced User when viewed as knowledge sets embedded within the CCTT application.

**A3. Use the Tutorial.** Allows the user to use an embedded tool that provides quick access to the novice user in investigating the contents of and the actual use of the CCTT.

**Outputs** are a CCTT Familiar User and a CCTT Knowledgeable User.

**Mechanisms** are the knowledge gleaned from the Training SME and CCTT SME when viewed as knowledge sets embedded within the CCTT application.



## A11. Examine CITT.

**A111. Preview CCTT Capabilities.** Provides a function that allows the user to focus on the ability of CCTT to support training. Provides a "thumbnail" of the CCTT with links to appropriate sections of the Learn about CCTT portion of CCTT.

Inputs are the CITT User and the CITT Familiar User.

A CITT Familiar User is the only output.

The CITT Experienced User as a knowledge set is the only mechanism.

**A112. Preview the TSP Development Methodology.** Provides a function that allows the user to focus on the TSP methodology. Provides a "thumbnail" of structured training with links to appropriate sections of the Produce Training Materials portion of CCTT.

Inputs are the CITT User and the CITT Familiar User.

A CITT Familiar User is the only output.

Mechanisms are the knowledge gleaned from Training SME, CITT Experienced User, and CEIT.

**A113. Preview Support Functions.** A function that allows the user to focus on the external actions required for coordinating his/her training event. Provides a description of each key function with links to appropriate sections of the Coordinate Support Functions portion of CCTT.

Inputs are the CITT User and the CITT Familiar User.

A CITT Familiar User is the only output.

The CITT Experienced User is the only mechanism.

NODE: A11

Training SME

CEIT

CITT

Examine CITT

NUMBER: D11000

4

## A2. Learn about CCTT.

**A21. Explore CCTT.** Provides a brief intro to the CCTT system including a general reference to units and echelons trained, major components of the CCTT, features of the CCTT, and both generic and site specific documentation concerning existing and forecasted Basis of Issue Plan (BOIP).

The CITT Knowledgeable User is the only input.

Mechanisms are the knowledge gleaned from the CCTT SME, the CCTT Experienced User, the CCTT System, and CCTT Support Personnel.

**A22. Examine System Capabilities.** Provides detailed information of the CCTT system

The CITT Knowledgeable User is the only input.

Mechanisms are the knowledge gleaned from the CCTT SME, the CCTT Experienced User, the CCTT System, and A CCTT System Familiar User (as a subset of a CCTT Knowledgeable User) is the only output.

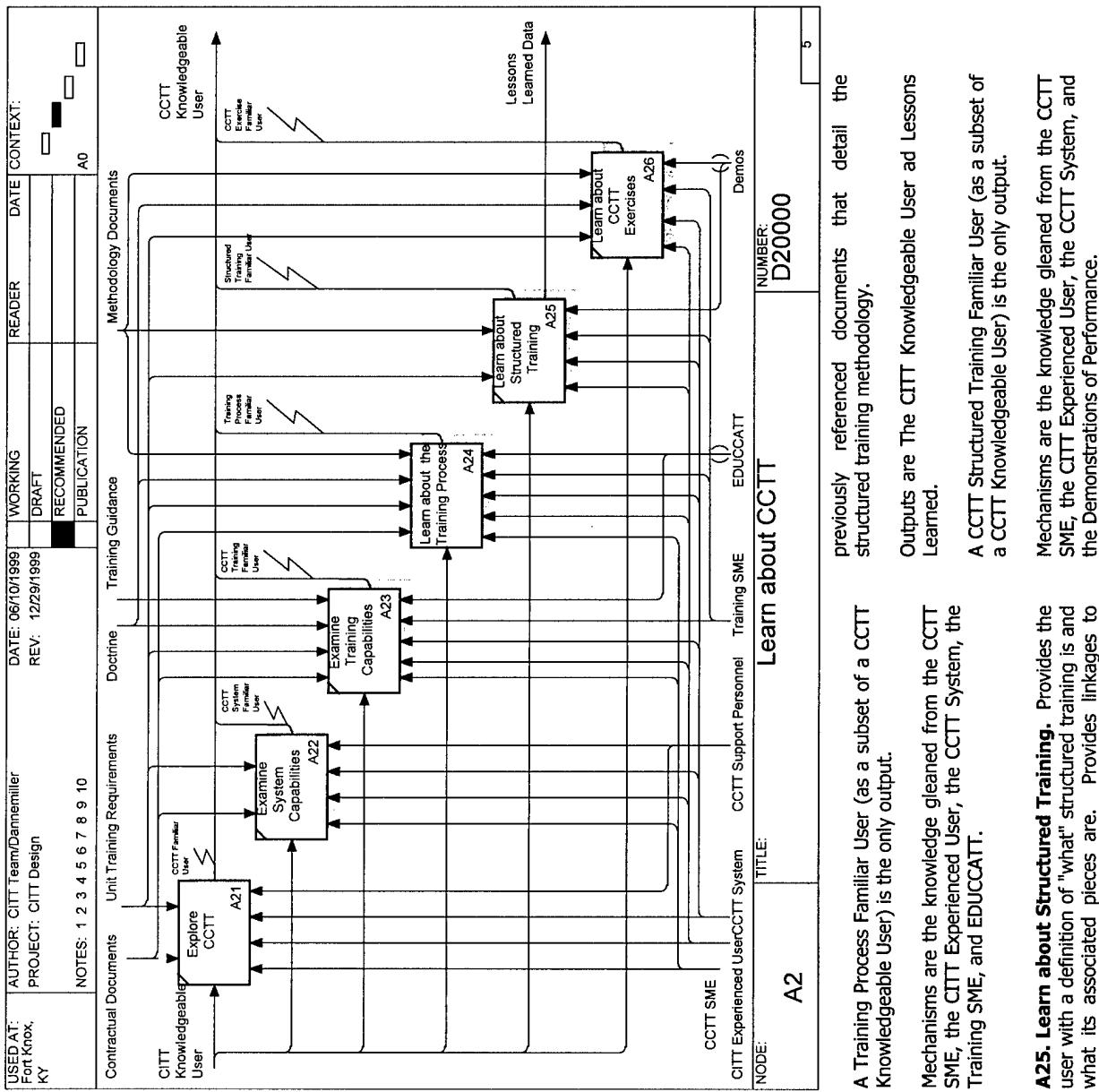
**A23. Examine Training Capabilities.** Provides an overview highlighting the types of units and echelons that can be trained in the CCTT highlighting how CCTT is designed to create a "train as you fight" philosophy.

The CITT Knowledgeable User is the only input.

Mechanisms are the knowledge gleaned from the CCTT SME, the CCTT Experienced User, the CCTT System, the Training SME and ENRCCATT ("new research approach").

**A24. Learn about the Training Process.** Provides an overview describing the various tasks involved in planning, preparing, executing, and assessing structured training in the CCTT.

The CITT Knowledgeable User is the only input.



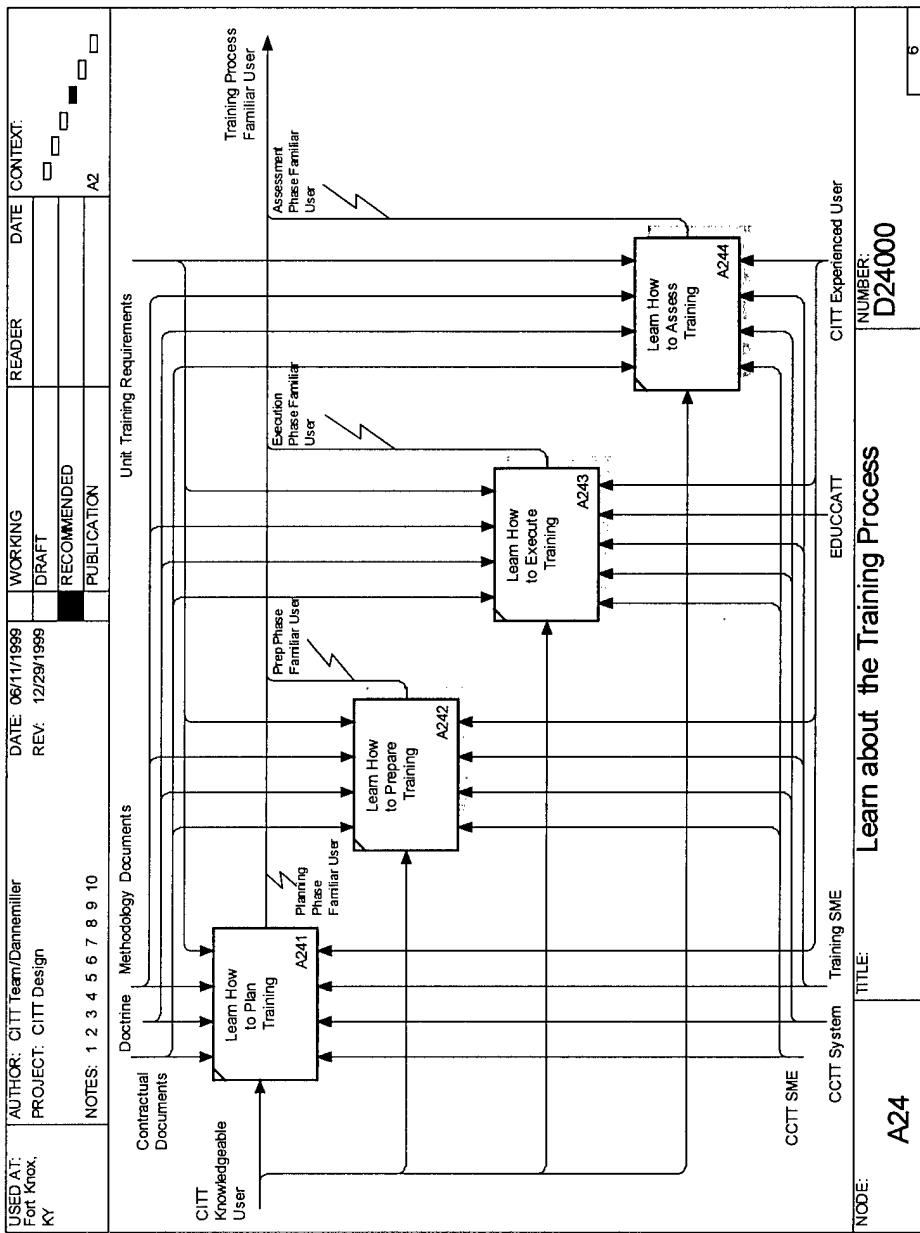
## **A2. Learn about CCTT. (continued)**

**A26. Learn about CCTT Exercises.** Provides an overview of the available CCTT exercises (i.e., orientation, fundamental, and mission set exercises). Includes the "why" these exercises are here, how they were designed (to include Crawl, Walk, Run), and discusses fielding and implementation strategy to include the archiving of exercises at varying levels within and external to the local installation.

The CCTT Knowledgeable User is the only input.

A CCTT Exercise Familiar User (as a subset of a CCTT Knowledgeable User) is the only output.

Mechanisms are the knowledge gleaned from the CCTT SME, the CCTT Experienced User, the CCTT System, and the Demonstrations of Performance.



#### A24. Learn about the Training Process.

**A241. Learn How to Plan Training.** Provides information on how to select training for use in CCTT, staffing, establishing the simulation training schedule, etc.

The CITT Knowledgeable User is the only input.

Mechanisms are the CCTT SME, CCTT System, Training SME, and CITT Experienced User.

**A242. Learn How to Prepare Training.** Provides information on coordinating for resources used within the CCTT site and external resources designed to help with training.

The CITT Knowledgeable User is the only input.

A Prep Phase Familiar User is the only output.

Mechanisms are the CCTT SME, CCTT System, Training SME, and CITT Experienced User.

**A243. Learn How to Execute Training.** Provides information concerning executing CCTT exercises, the role of the O/C (Trainer), Unit Support Workstations (USWS) and Site personnel while training is ongoing.

The CITT Knowledgeable User is the only input.

An Execution Phase Familiar User is the only output.

Mechanisms are the CCTT SME, CCTT System, Training SME, EDUCATT, and CITT Experienced User.

**A244. Learn How to Assess Training.** Includes information about the AAR, how to use the CCTT AAR WS during the conduct of an AAR, and the Post-Exercise report.

Provides the ability to do an assessment of training so that commander/leader can input this into SATS. Includes links to ATIMP (for CATS strategy review).

The CITT Knowledgeable User is the only input.

An Assessment Phase Familiar User is the only output.

NOTE:	A24	TITLE:	Learn about the Training Process	NUMBER:	D24000
					6

### A3. Produce Training Materials.

**A31. Select an Exercise.** Allows the user to designate basic exercise criteria, view the available exercise data, & make decisions concerning whether or not the existing exercise will be used or will need to be modified or new ones created.

Inputs are the Unit Training Requirements, CCTT Exercise Package, and a Candidate Exercise Review Result.

Outputs are the New CCTT Exercise Requirement, a Partially Acceptable CCTT Exercise Package, and a Candidate CCTT Exercise Package.

Mechanisms are the CITT Experienced User and TEXMIS.

**A32. View the Exercise.** Allows user to view a stored CCTT exercise. Based upon this review, user either decides to execute the exercise selected or to modify it (via the null response arrow).

A Candidate CCTT Exercise Package is the only input.

A Candidate Exercise Review Result is the only output.

Mechanisms are the **CHT** Functional Law and **TEYMIC**

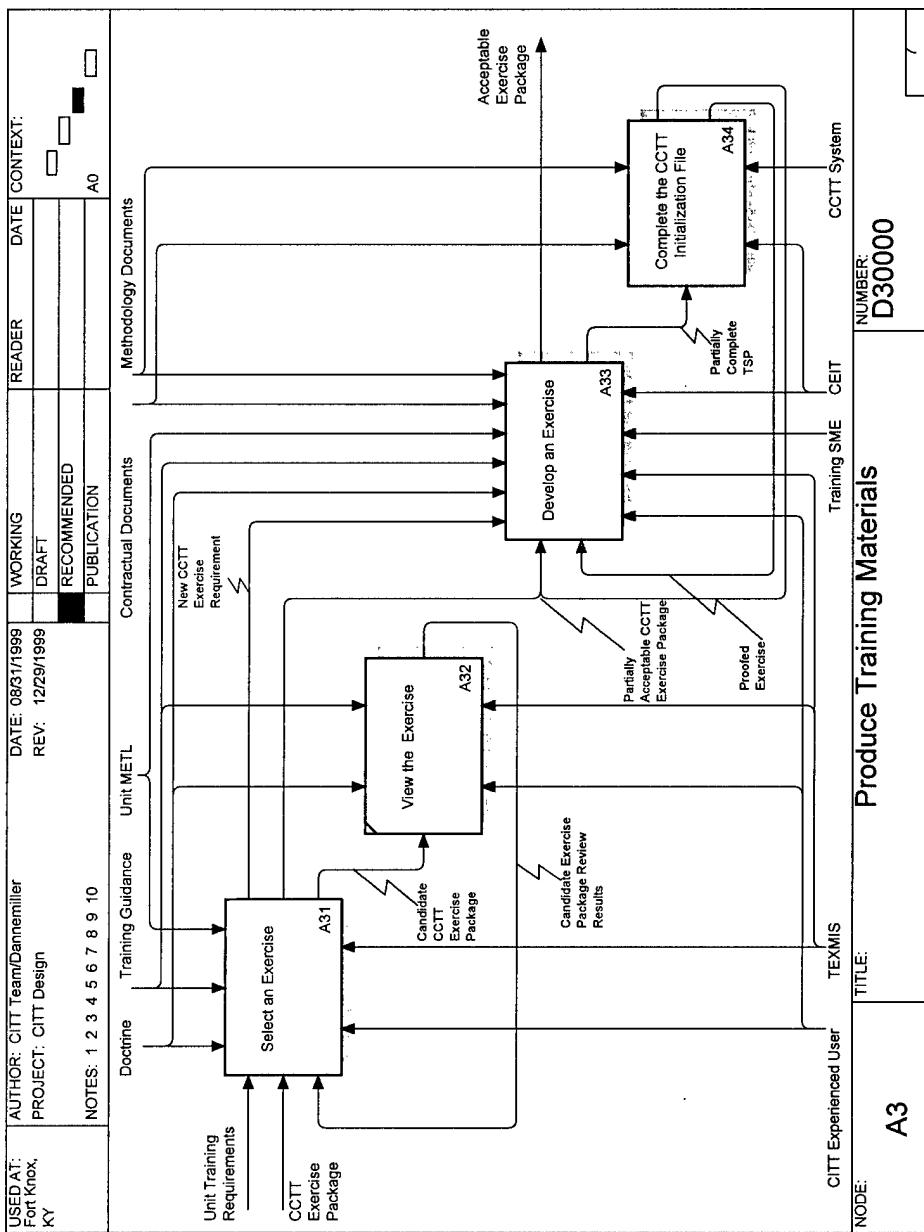
**A33. Develop an Exercise.** A detailed "how" to modify and create a structured exercise using a structured exercise template as the foundation. Includes "rule sets" (simple to complex) that reinforce the structured, simulation-based (task-based) approach to developing training for CCTT.

Inputs are a Partially Acceptable Exercise Package and a Proofed Exercise.

A Partially Complete TSP is the only output

Mechanisms are the CTTT Experienced User, TEXMIS, the Training SME, and the CTTT Exercise Initialization Tool (CETT).

**A34. Complete the CCTT Initialization File.** Details for the unit trainer how to transmit the partially complete training support package and the CCTT initialization file for refinement and proofing on the actual CCTT system.



Provides the ability to do an assessment of training so that commander/leader can input this into SATS. Includes links to ATIMP (for CATS strategy review).

A Partially Complete TSP is the only input-

## Outputs are a Partially Acceptable Exercise Package and S. Preceded Exercises

Mechanisms are CFTT and the CCTT System

### A31. Select an Exercise.

**A311. Select Sort Criteria.** Provides a capability that allows the user to select an exercise to view by specified criteria.

Variables include selection by task identification (from MTP matched to unit type and echelon), by name (from previously developed exercise listing), and by user induced filtering by echelon (e.g., Plt, Co/Tm, etc.), unit type (i.e., AR, MX, CAV), and mission type (e.g., Offense, Defense, MTC, etc.).

Inputs are the Unit Training Requirements and the CCTT Exercise Package.

The Exercise Sort Criteria is the only output.

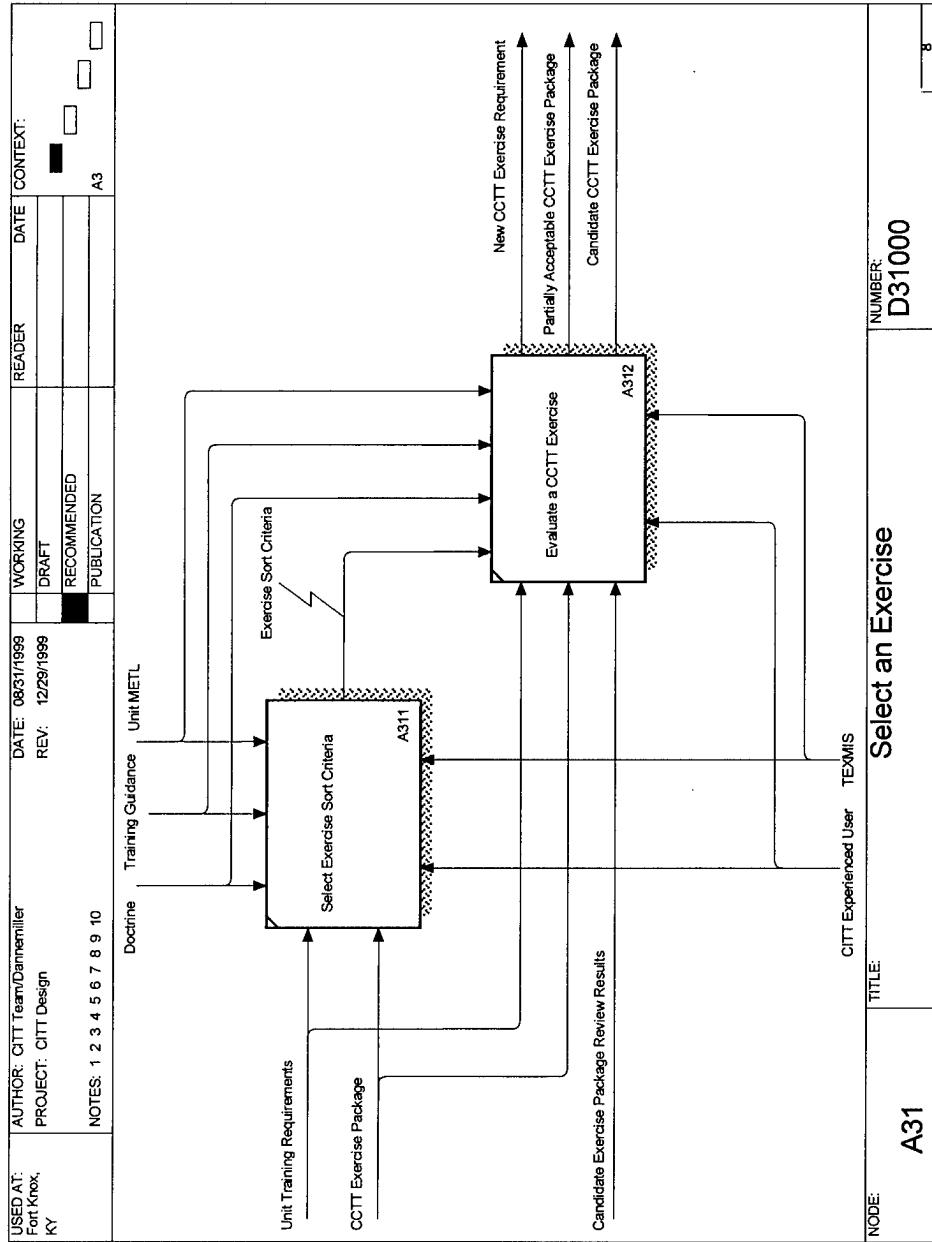
Mechanisms are the CCTT Experienced User and TEXMIS.

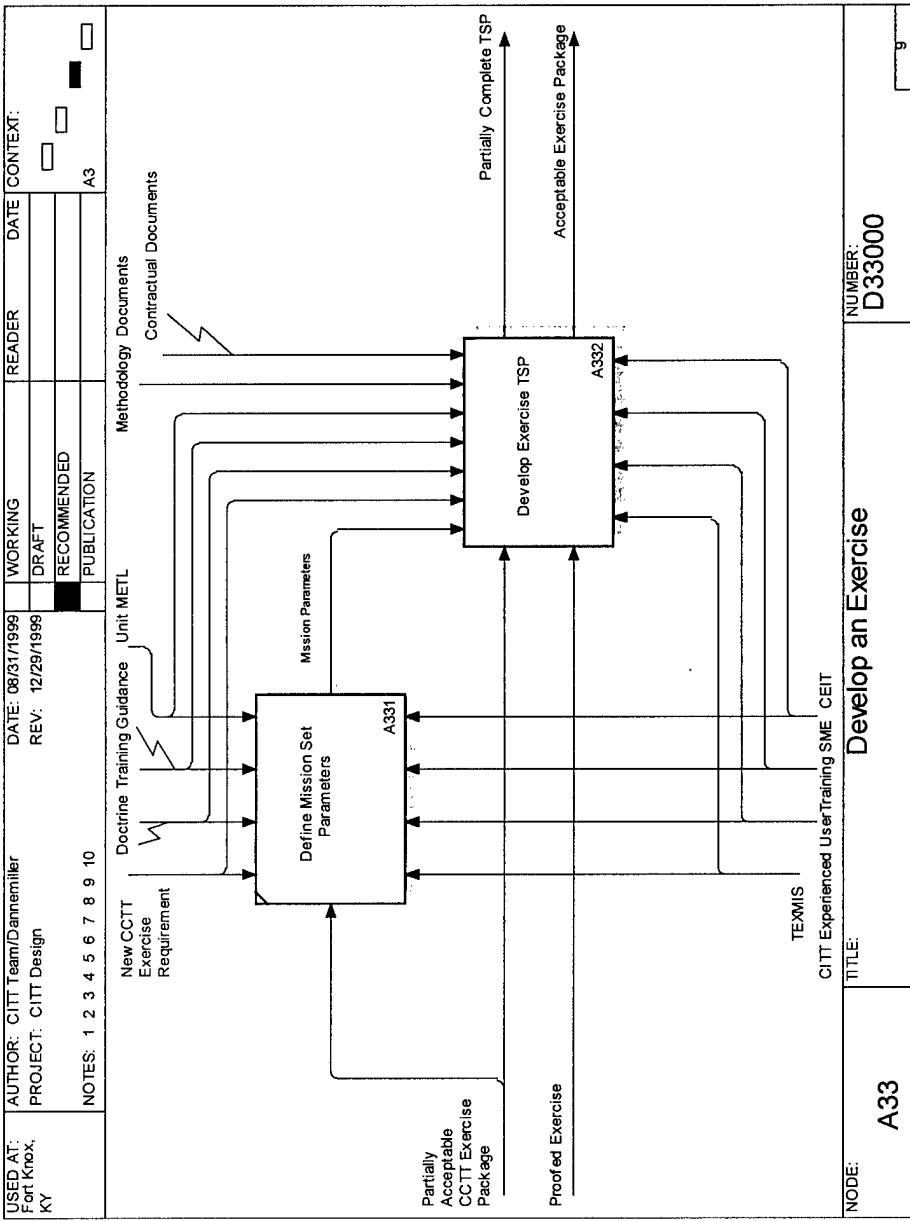
**A312. Evaluate a CCTT Exercise.** Provides the user with the ability to evaluate the capability of the selected exercise to evaluate their training needs by comparing unit tasks and conditions specific to exercise tasks and conditions.

Inputs are the Unit Training Requirements, the CCTT Exercise Package, and the Candidate Exercise Package Review Results.

Outputs are the New CCTT Exercise Requirement, a Partially Acceptable Exercise Package, and a Candidate CCTT Exercise Package.

Mechanisms are the CCTT Experienced User and TEXMIS.





### A33. Develop an Exercise.

**A331. Define Mission Set Parameters.** Defines the limits of the mission set (i.e., multiple exercises linked by a common tactical scenario) and is the tactical framework within which an exercise or set of exercises is created. Is detailed in the Mission Concept Sketch (or MSC) by the user using the exercise initialization tool (in this case the CITT Exercise Initialization Tool or CET) embedded wizard. Includes essential tactical graphical control measures, unit locations and dispositions (BLUFOR and OPFOR), and other control measures used by CGF elements.

A Partially Acceptable CITT Exercise Package is the only input.

A set of new Mission Parameters is the only output.

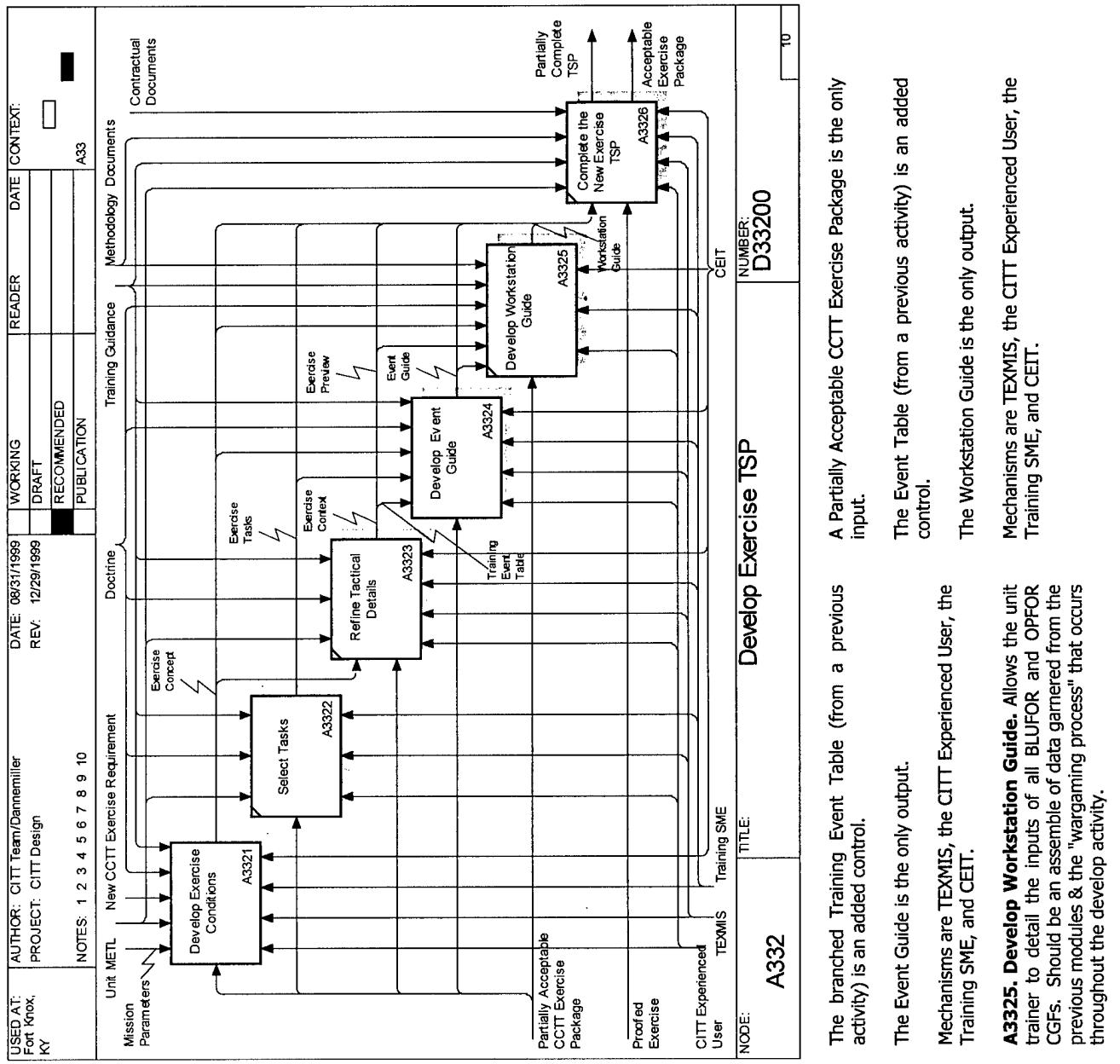
Mechanisms are TEXMIS, the CITT Experienced User, the Training SME, and CETT.

**A332. Develop Exercise TSP.** The process whereby the exercise training support package is created or developed.

Inputs are a Partially Acceptable CITT Exercise Package and a Proofed Exercise.

Outputs are a Partially Complete TSP and an Acceptable Exercise Package.

Mechanisms are TEXMIS, the CITT Experienced User, the Training SME, and CETT.



### A332. Develop Exercise TSP.

**A3321. Develop Exercise Conditions.** Includes information found in the exercise description, the exercise concept diagram, SAF & USWS operator actions, & weather data areas of the Overview & Set-up Guidance.

An Exercise Concept is the only output.

Mechanisms are TEXMIS, the CITT Experienced User, the Training SME, and CITT.

**A3322. Select Tasks.** Allows the unit trainer to focus on the selection of specific tasks and performance standards in support of the training requirements. Tasks are obtained from the appropriate MTP via linkages to TEXMIS.

A Partially Acceptable CCTT Exercise Package is the only input.

Mechanisms are **TEXMIS**, the CITT Experienced User, the A list of Exercise Tasks is the only output.

**A3323. Refine Tactical Materials.** Includes refinement of the data found in the tactical situation, starting locations, call signs, & frequency portions from the original exercise concept-discussion.

Inputs are a Partially Acceptable CCTT Exercise Package and the Exercise Concept (from a previous activity).

Mechanisms are TEXMIS, the CITT Experienced User, the Training SME and CITT.

**A3324. Develop Event Guide.** Provides for an iterative process whereby the user delineates CBT, CS, & CSS actions & reactions in order to meet stated training objectives(s).

A Partially Acceptable CCTT Exercise Package is the only input.

**A332. Develop Exercise TSP  
(continued).**

**A3326. Complete the New Exercise TSP.** Provides the opportunity for the unit trainer to review and complete the development of all previously developed portions of the exercise training support package as well as the Mission Set Summary, the OPORD, and the Exercise Outline.

Inputs are the Workstation Guide and Event Guide (outputs of previous activities) and the Proofed Exercise.

Outputs are a Partially Complete TSP and an Acceptable Exercise Package.

Mechanisms are TEXMIS, the CITT Experienced User, the Training SME, and CEIT.

**USED AT:** Fort Knox, KY    **AUTHOR:** CITT Team/Dannermiller    **PROJECT:** CITT Design    **DATE:** 08/31/1999    **WORKING DRAFT**    **READER:** DATE CONTEXT:  
 A3322

**REV:** 12/29/1999    **RECOMMENDED**

**NOTES:** 1 2 3 4 5 6 7 8 9 10

**MISSION PARAMETERS**

**Unit METL**

**New CCITT Exercise Requirement**

**Training Event Table**

**Develop an Event Table**    A33211

**Develop Exercise Detail**    A33212

**Exercise Description**

**Mission Concept Sketch**

**Exercise Concept Sketch**

**Workstation Listing**

**Workstation Action**

**Doctrine**

**Exercise Concept**

**Training Guidance**

**Specify Workstation Operator Actions**    A33214

**CETT**

**TEMIS**

**Training SME**

**Develop Exercise Conditions**

**Partially Acceptable CCITT Exercise Package**

**CITT Experienced User**

**NOTE:** A3321    **TITLE:** Develop Exercise Conditions    **NUMBER:** D33210

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graph TD
    subgraph "New CCITT Exercise Requirement"
        direction TB
        A[Develop an Event Table] --> B[Develop Exercise Detail]
        B --> C[Exercise Description]
        B --> D[Mission Concept Sketch]
        C --> E[Exercise Concept Sketch]
        D --> E
        E --> F[Specify Workstation Operator Actions]
        F --> G[Workstation Listing]
        G --> H[Workstation Action]
        H --> I[Doctrine]
        I --> J[Exercise Concept]
        I --> K[Training Guidance]
        K --> L[Training Event Table]
        L --> M[Develop Exercise Detail]
        M --> N[Exercise Description]
        M --> O[Mission Concept Sketch]
        N --> P[Exercise Concept Sketch]
        O --> P
        P --> Q[Specify Workstation Operator Actions]
        Q --> R[Workstation Listing]
        R --> S[Workstation Action]
        S --> T[Doctrine]
        T --> U[Exercise Concept]
        U --> V[CETT]
        V --> W[TEMIS]
        W --> X[Training SME]
        X --> Y[Develop Exercise Conditions]
        Y --> Z[CITT Experienced User]
        Z --> AA[Partially Acceptable CCITT Exercise Package]
        AA --> BB[Develop Exercise Requirements]
        BB --> CC[Develop Exercise Detail]
        CC --> DD[Exercise Description]
        CC --> EE[Mission Concept Sketch]
        DD --> FF[Exercise Concept Sketch]
        EE --> FF
        FF --> GG[Specify Workstation Operator Actions]
        GG --> HH[Workstation Listing]
        HH --> II[Workstation Action]
        II --> JJ[Doctrine]
        JJ --> KK[Exercise Concept]
        KK --> LL[Training Guidance]
        LL --> MM[Training Event Table]
        MM --> NN[Develop Exercise Detail]
        NN --> OO[Exercise Description]
        NN --> PP[Mission Concept Sketch]
        OO --> QQ[Exercise Concept Sketch]
        PP --> QQ
        QQ --> RR[Specify Workstation Operator Actions]
        RR --> SS[Workstation Listing]
        SS --> TT[Workstation Action]
        TT --> UU[Doctrine]
        UU --> VV[Exercise Concept]
        VV --> WW[CETT]
        WW --> XX[TEMIS]
        XX --> YY[Training SME]
        YY --> ZZ[Develop Exercise Conditions]
        ZZ --> AAA[CITT Experienced User]
        AAA --> BBB[Partially Acceptable CCITT Exercise Package]
    end

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### A3321. Develop Exercise Conditions.

**A33211. Develop Event Table.** The listing of events and the order in which the trainer wants them to occur in the new exercise.

A Partially Acceptable CCTT Exercise Package is the only input.

A Training Event Table is the only output.

Mechanisms are TEXMIS, the CITT Experienced User, and the Training SME.

**A33212. Develop Exercise Detail.** Affords the user with the ability to review, edit, or create the general description of events, mission, general GCM data, and expected OPFOR actions.

A Partially Acceptable CCTT Exercise Package is the only input

The Exercise Description (as a component of the Exercise Concept) is the only output

Mechanisms are the Training Event Table (from a previous activity), TEXMIS, the CITT Experienced User, and the CITT Survey.

**A33213. Develop Exercise Concept Sketch.** A graphic representation of the terrain in which the exercise will occur where units and controlling overlays are created by the trainer using standard military symbols. Commonly referred to as ECS. Is a subset of Mission Command Refresher.

Inputs include the Mission Concept Sketch (from a previous activity) and a Partially Acceptable CCTT Exercise Package.

Outputs are the Exercise Concept Sketch (as a component of the Exercise Concept) and a Workstation Listing.

Mechanisms are TEXMIS, the CITT Experienced User, the Training SME, and CEIT.

### A33214. Specify Workstation Operator Actions.

**A33214. Specify Workstation Operator Actions.** General guidance provided for each of the workstations involved in the exercise based upon the assignment of

BLUFOR and OPFOR assets from the exercise concept sketch.

the Training SME, and CEIT.

activity) and a Partially Acceptable CCTT Exercise Package.

The Workstation Action listing (as a component of the Exercise Concept) is the only output.

### A33211. Develop Event Table.

A Partially Acceptable CCTT Exercise Package is the only input.

An Event List is the only output.

Mechanisms are the CTTT Experienced User and the Training SME.

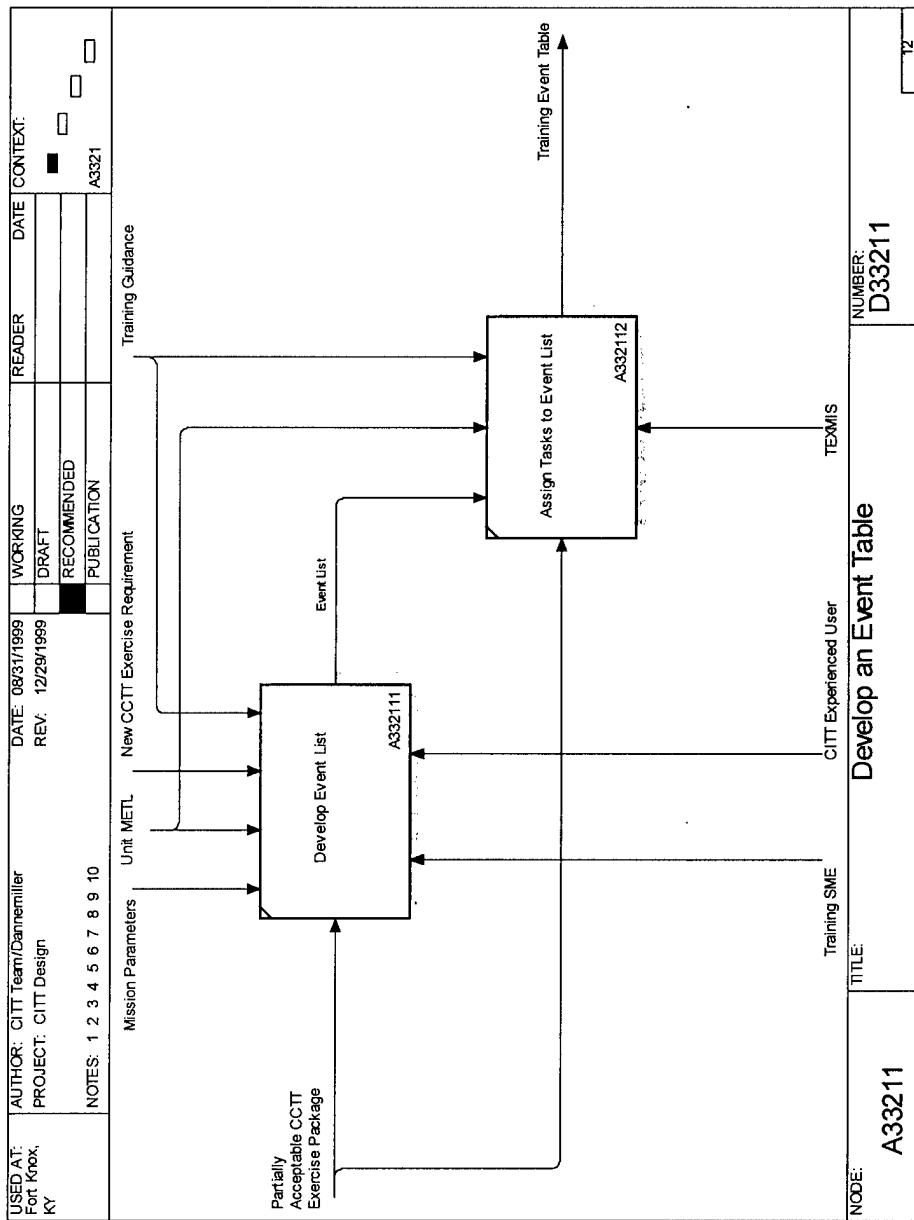
**A332.12. Assign Tasks to Event List.** The point at which tasks (and task-steps) are assigned to a specific event that the training developer expects the training unit to accomplish.

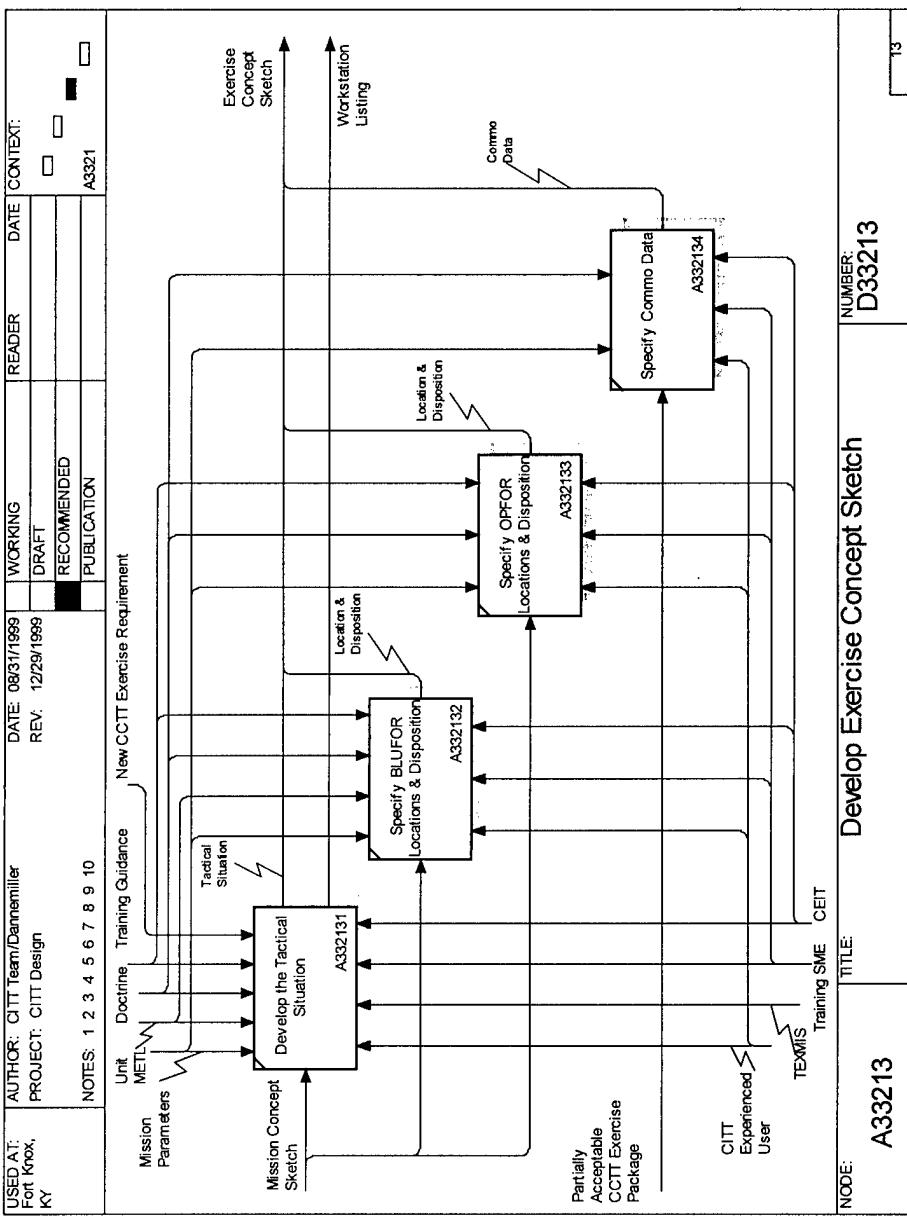
A Partially Acceptable CCTT Exercise Package is the only input.

The Event List (from the previous activity) is an added control.

A Training Event Table is the only output

**TEXMIS** is the only mechanism.





### A332131. Develop Exercise Concept Sketch.

**A332131. Develop the Tactical Situation.** A description of the current situation the training unit can expect to find itself in once the simulation exercise is initialized.

The Mission Concept Sketch (from a previous activity) is the only input.

Outputs are the Exercise Concept Sketch and the Workstation Listing.

Mechanisms are TEXMIS, the CCTT Experienced User, the Training SME, and CEIT.

### A332132. Specify BLUFOR Locations & Disposition.

**Detailed information concerning the siting and disposition of BLUFOR computer-generated forces (CGF) found within a CCTT exercise. Includes data on system type (e.g., MM, SAF, or Unit Spt WS), system identification (e.g., 11/A/2-37, 2/A/2-37, etc.), location (including UTM Id & 6/8/10-digit), & azimuth (i.e., hull orientation in degrees) from baseline. User can add, delete, or modify an entry. Additions or modifications are done in terms of CBT, CS, or CSS forces with translations (e.g., add Mortar Pit = add FDC to Task Organization with 6 M1064 & 2 M577, add EN Company = add CES to Task Organization with 2 Pioneer Pits & 1 A&O Pit with ... , add FA Unit = add FABTOC with 4 Batteries & HQ element, etc.).**

The Mission Concept Sketch (from a previous activity) is the only input.

Location and Disposition of BLUFOR elements (as a component of Exercise Concept Sketch) is the only output.

Mechanisms are the CCTT Experienced User, the Training SME, and CEIT.

### A332133. Specify OPFOR Locations & Disposition.

**Detailed information concerning the siting and disposition of OPFOR computer-generated forces (CGF) found within a CCTT exercise. Includes data on system type (i.e., SAF), system identification (e.g., 11/OIN1, 2/OIN1, OAR1, etc.), location (including UTM Id &**

6/8/10-digit), & azimuth (in degrees) from baseline. Should show/display only OPFOR & White forces. User can add, delete, or modify an entry. Additions or modifications are done in terms of CBT, CS, or CSS forces with translations (e.g., add CRP = add MIP of 3 vehicles that is either BMP or BTR-based, add FSE = add MIC is either BMP or BTR-based, add CATK Co = add Tank Company that is either T72M or T80-based, etc.).

**A332134. Specify Commo Data.** Allows the unit trainer to specify detailed information concerning the tactical communications set-up with the CCTT exercise. Includes designation of call signs & suffixes for all players from baseline exercise as well as default frequencies.

The Mission Concept Sketch (from a previous activity) is the only input.

Location and Disposition of OPFOR elements (as a component of Exercise Concept Sketch) is the only output.

Mechanisms are the CCTT Experienced User, the Training SME, and CEIT.

Location and Disposition of OPFOR elements (as a component of Exercise Concept Sketch) is the only output.

**A332134. Specify Commo Data.** Allows the unit trainer to specify detailed information concerning the tactical communications set-up with the CCTT exercise. Includes designation of call signs & suffixes for all players from baseline exercise as well as default frequencies.

**A33213. Develop Exercise Concept Sketch (continued).**

A Partially Acceptable CCTT Exercise Package is the only input.

Location and Disposition of BLUFOR elements (as a component of Exercise Concept Sketch) is the only output.

Mechanisms are the CCTT Experienced User, the Training SME, and CEIT.

#### A3324. Develop Event Guide.

**A33241. Specify Event Action.** Guidance focused at the event level designed to ensure that the training unit and all supporting workstations (e.g., USWS, AAR, SAF) and personnel (e.g., commanders, USWS operators, LCCS site personnel) remain focused on the tasks to trained and observed within the event during the conduct of the training exercise.

A Partially Acceptable CCTT Exercise Package is the only input.

The Event Action listing (as a component of the Event Guide) is the only output.

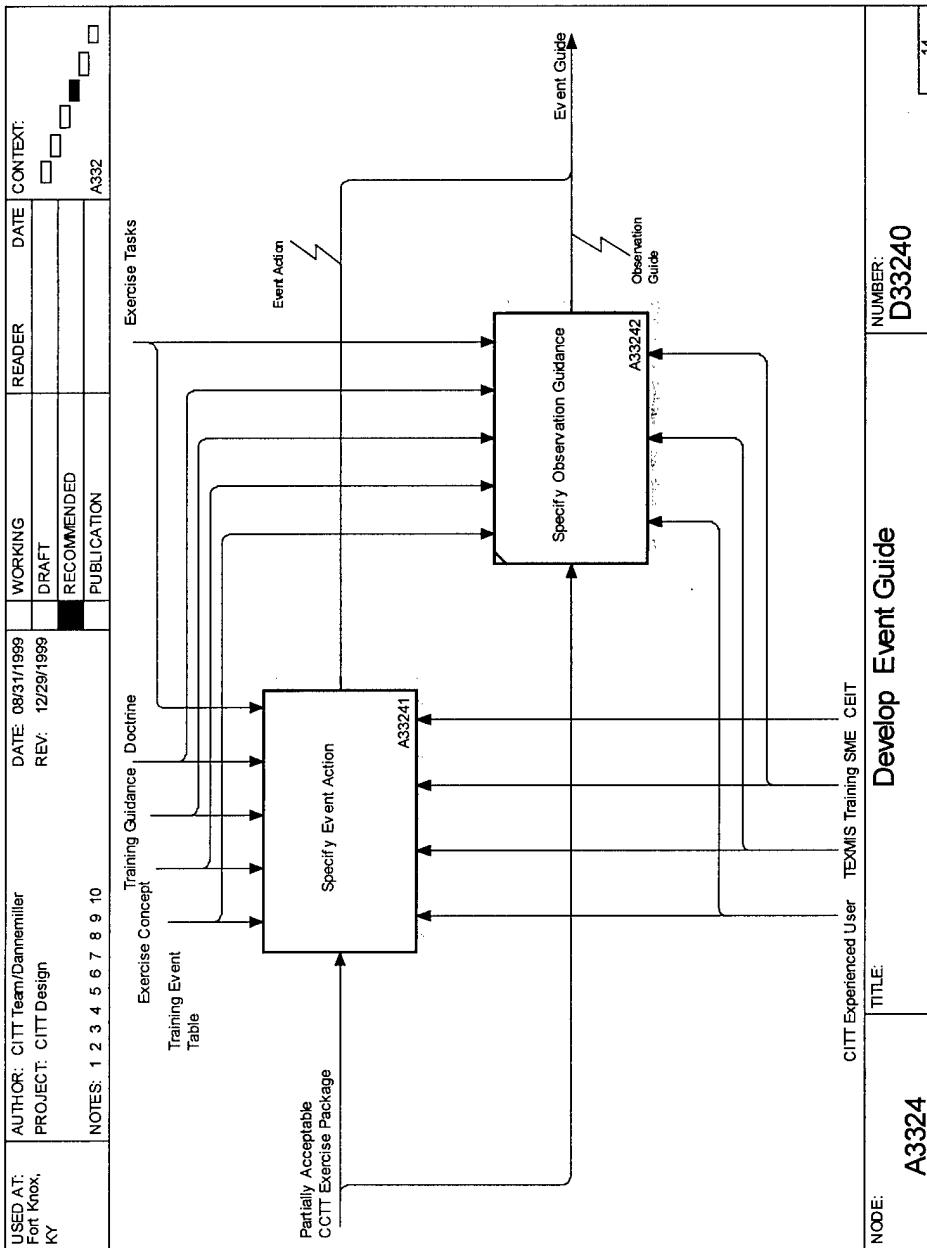
Mechanisms are the CCTT Experienced User, TEXMIS, the Training SME, and CEIT.

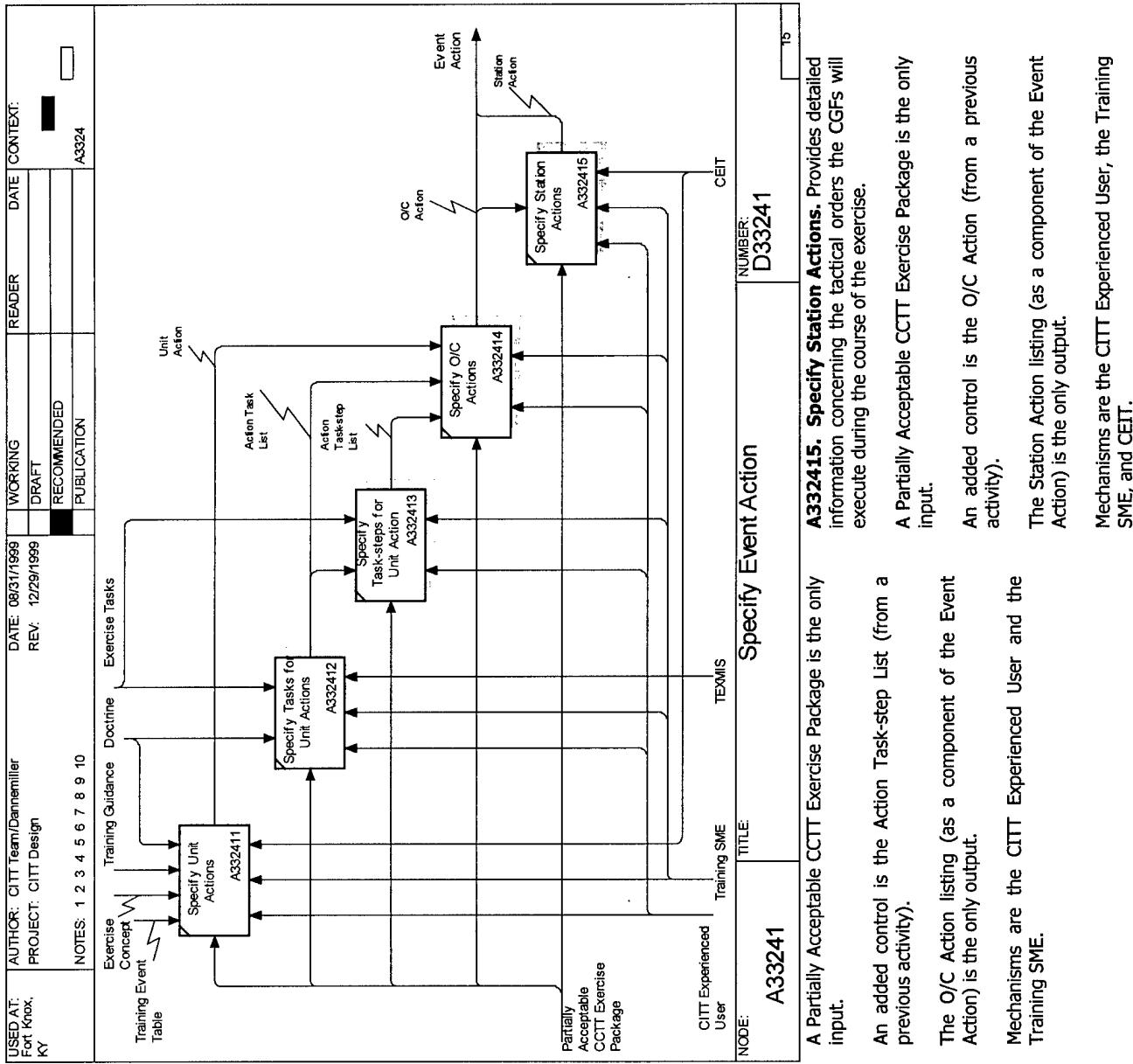
**A33242. Specify Observation Guidance.** That portion of the Event Guide that provides the trainer with information concerning what events & cues are specific to the exercise. Assists the training by focusing on key events within the exercise and how best to observe them in the context of the structured exercise.

A Partially Acceptable CCTT Exercise Package is the only input.

The Observation Guide (as a component of the Event Guide) is the only output.

Mechanisms are the CCTT Experienced User, TEXMIS, and the Training SME.





### A33241. Specify Event Action

**A332411. Specify Unit Actions.** A "thumbnail" of the action the training unit should execute within a particular Event Action. May include descriptive and prescriptive data. Should be to the lowest level possible consistent with the training objectives.

A Partially Acceptable CCTT Exercise Package is the only input.

The Unit Action listing is the only output.

Mechanisms are the CITT Experienced User, the Training SME, and CEIT.

**A332412. Specify Tasks for Unit Actions.** The action wherein the trainer designates tasks that coincide with a specific unit action within the event.

A Partially Acceptable CCTT Exercise Package is the only input.

The Action Task List is the only output.

Mechanisms are the CITT Experienced User, the Training SME, and TEXMIS.

**A332413. Specify Tasks-steps for Unit Actions.** Provides the unit trainer with the ability to identify task-steps from within a task that are expected to be executed and observed as a result of a unit action.

A Partially Acceptable CCTT Exercise Package is the only input.

An added control is the Action Task List (from a previous activity).

The Action Task-step List is the only output.

Mechanisms are the CITT Experienced User and the Training SME.

**A332414. Specify O/C Actions.** The action the O/C (trainer) should execute in conjunction with the unit action.

**A332415. Specify Station Actions.** The only input.

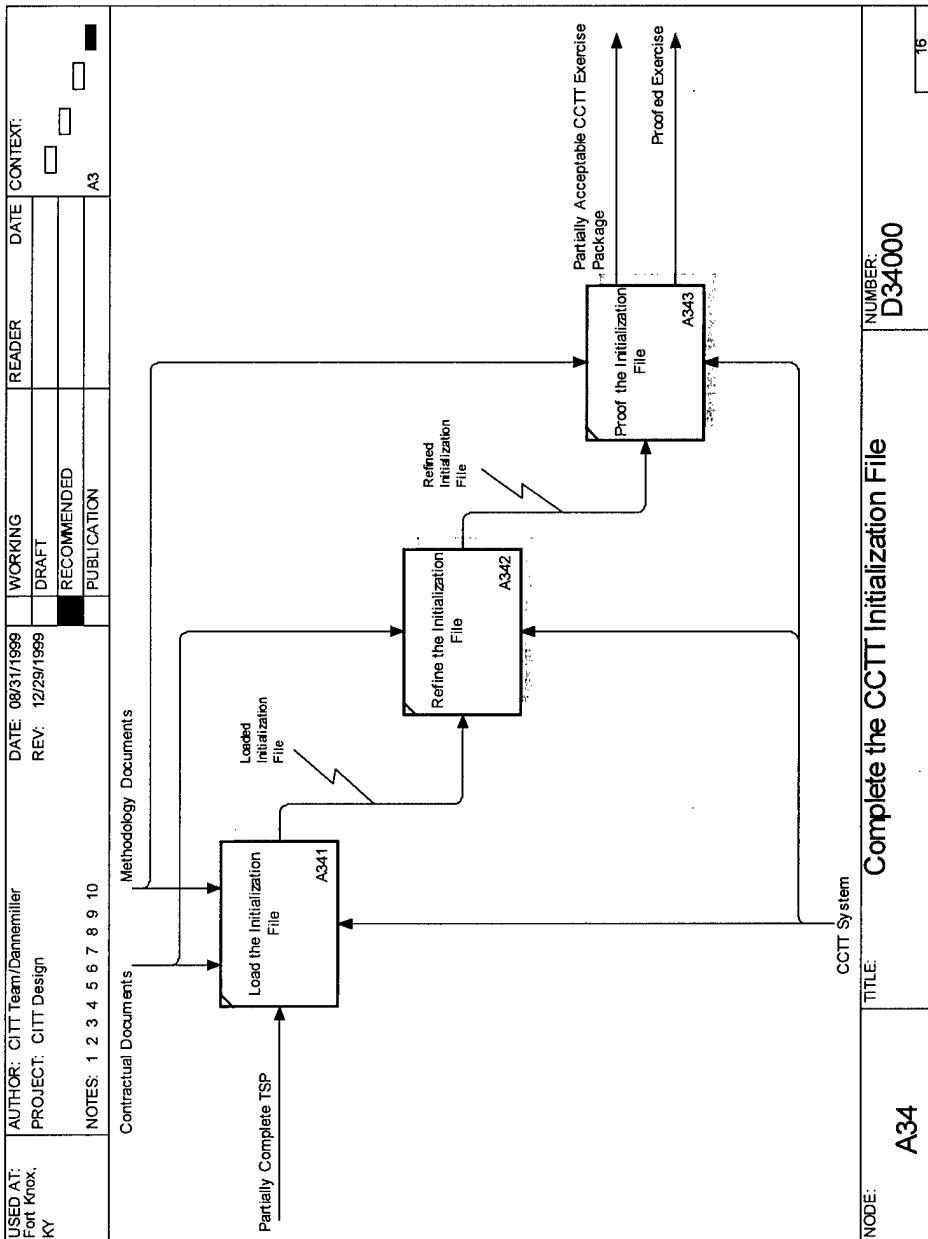
An added control is the O/C Action (from a previous activity).

A Partially Acceptable CCTT Exercise Package is the only input.

The O/C Action listing (as a component of the Event Action) is the only output.

Mechanisms are the CITT Experienced User and the Training SME.

Mechanisms are the CITT Experienced User, the Training SME, and CEIT.



#### A34. Complete the CTTT Initialization File.

**A341. Load the Initialization File.** Provides the unit trainer with the capability to assemble, transmit, and initialize the exercise that is supported by the training support package.

A Partially Complete TSP is the only input.

The CCITT System is the only mechanism.

**A342. Refine the Initialization File.** The process whereby the unit trainer refines the training support package initialization file to ensure that it supports training requirements.

A Loaded Initialization File (from a previous activity) is the only input.

A Refined Initialization File is the only output.

The CCTT System is the only mechanism.

**A343. Proof the Initialization File.** Provides the unit trainer with the capability to complete the exercise by proofing the exercise training support package on the CCTT system.

A Refined Initialization File (from a previous activity) is the only input.

Outputs are a Partially Acceptable CCTT Exercise Package and a Proofed Exercise.

The CCTT System is the only mechanism.

#### 4. Coordinate Support Functions.

**A41. Package Exercise Materials.** Provides the user with the opportunity to transmit the actual CCTT initialization file to the host site for loading into the actual system.

An Acceptable Exercise Package is the only input.

CETT is the only mechanism.

**A42. Review Site Operations Documents.** Provides the user with information concerning CCTT Site standing operating procedures, scheduling requirements, etc., in a real-time mode via existing connectivity. Includes an embedded tool that provides for the clean transmission of the electronic file to the supporting site (per the scheduled request) and for response by the site

Inputs are a Complete TSP (as an output from a Previous activity) and Unit Training Requirements.

A System Availability listing is the only output

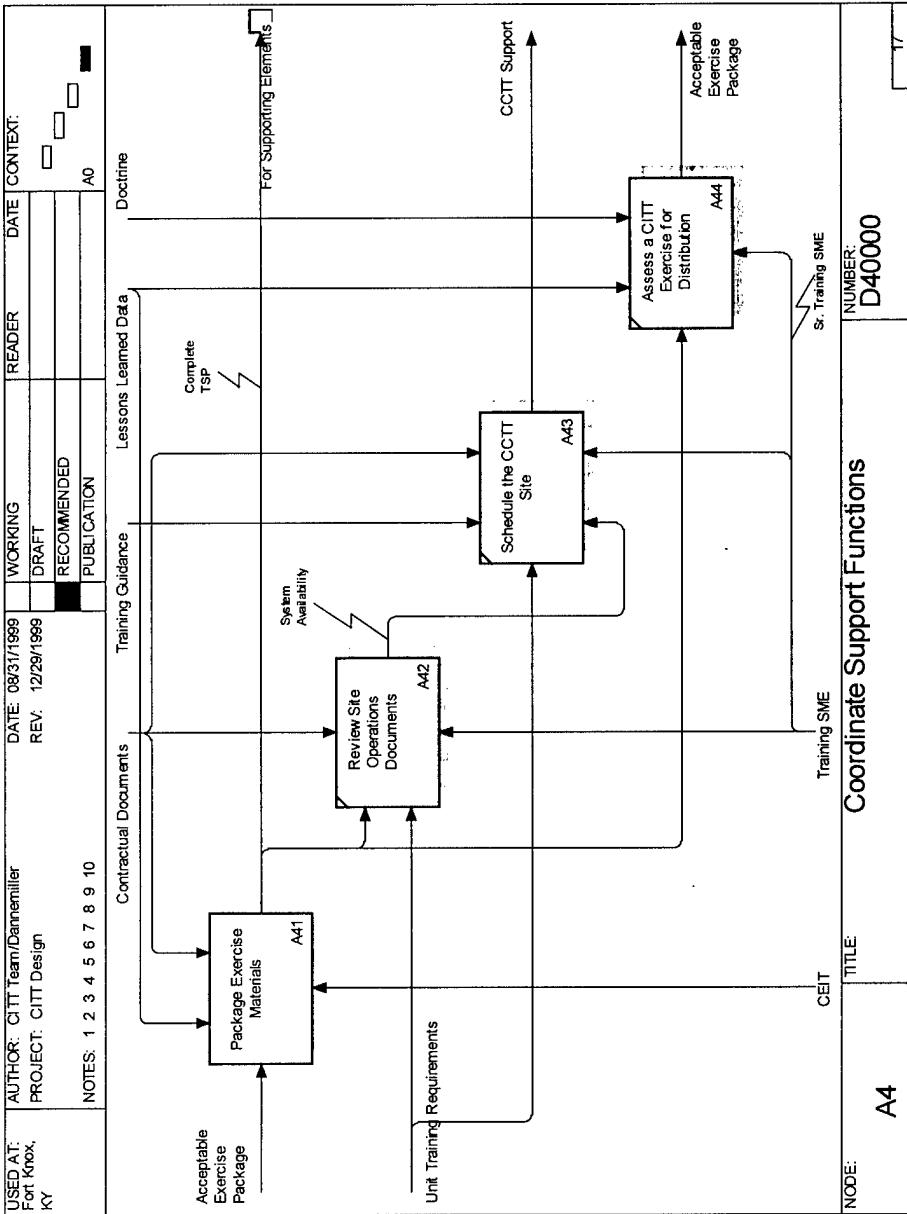
**A43. Schedule the CCCT Site.** Provides the user the opportunity to schedule resources at a site to support unit training.

Includes a scheduling tool should be embedded in the CITT and result in a standardized request for support (down to MM and USWS as well as personnel requirements) that is then sent to the site/scheduling authority. Request is acted upon by the proponent and a message is transmitted to the requesting unit confirming/denying the request.

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An CCTT Support is the only output.

Mechanisms are the System Availability listing (from a previous activity) and the Training SME.



A Complete TSP (as an output from a previous activity) is the only input a message is transmitted to the requesting unit confirming/denying the request.

An Acceptable Exercise Package is the only output.

A Specialized Training SME is the only mechanist. This is the first OS in the chain of command for the unit that developed the exercise. He or she serves as the approving authority for migrating an exercise to the archive server.

## 41. Package Exercise Materials.

**A4.1. Assemble Exercise Materials.** Provides the unit trainer with the capability to assemble the previously developed exercise materials required to support the CCTT exercise training support package.

An Acceptable Exercise Package is the only input.

A Complete TSP is the only output.

CEITT is the only mechanism.

**A42. Distribute Exercise Materials.** Provides the unit trainer with the capability to distribute electronically (via embedded electronic mail or web access) the previously developed exercise materials required to support the CCTT exercise training support package.

Inputs are the Complete TSP (from a previous activity) and an Accentable Exercise Package.

A Complete TSP in electronic form is the only output

CETT is the only mechanism

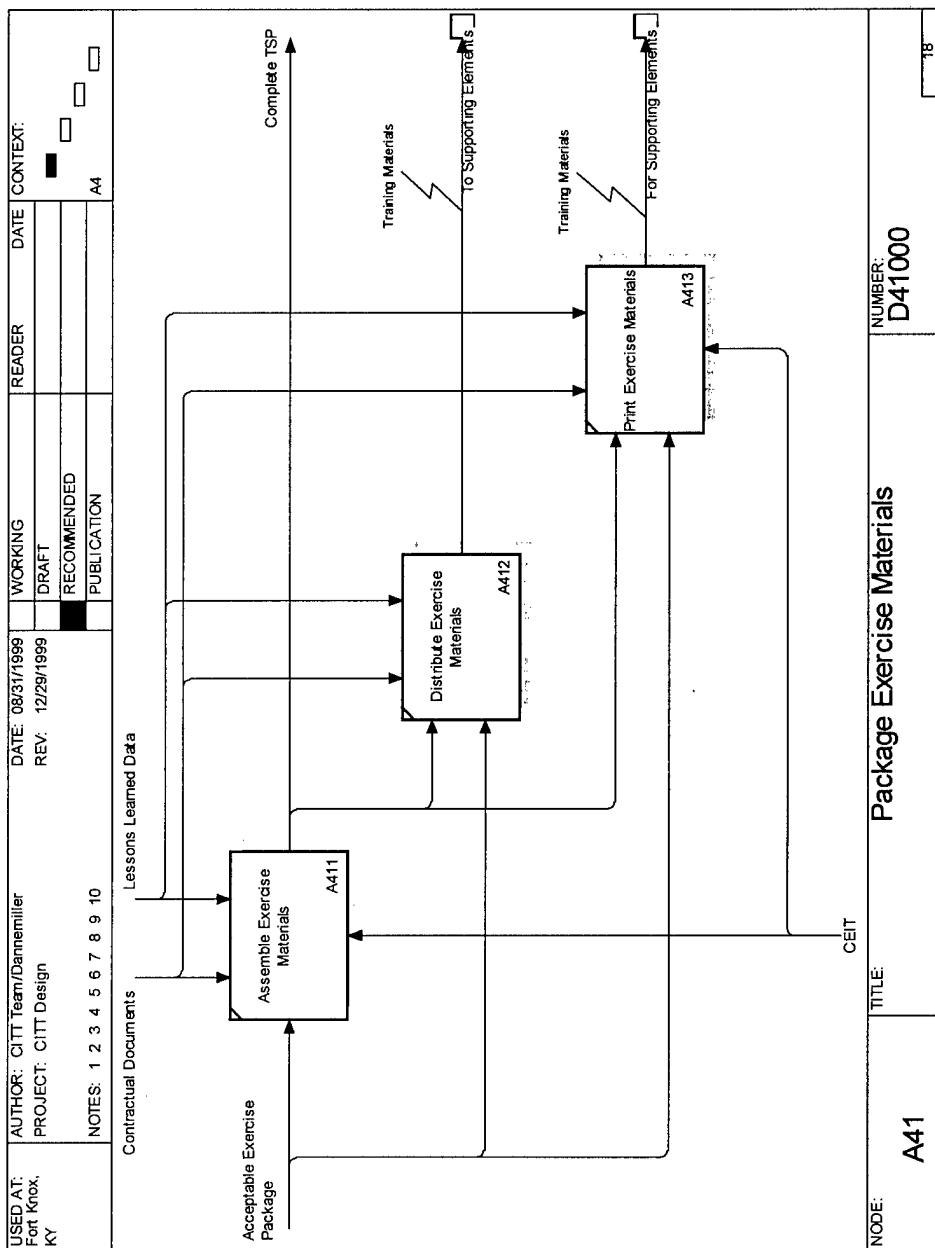
**A43. Print Exercise Materials.** Provides the unit trainer with the capability to print the previously developed exercise materials required to support the exercise training support package.

Includes an embedded tool that provides for the clean transmission of the electronic file to the supporting site (or the scheduled request) and for responses by the site.

Inputs are the Complete TSP (from a previous activity)

SOMETHING TO DO WITH THE PUPILS

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Arrow Name	Arrow Definition	Arrow Note
Acceptable Exercise Package	A CCTT exercise package that will support the required training requirements. This includes the Exercise TSP and the CCTT Initialization File. The Exercise TSP is the based document that includes all of the information necessary (i.e., preparation, planning, execution, and assessment documents) to conduct and support training. The CCTT Initialization File is an ASCII-text file that includes all data fields required to load and initialize a CCTT exercise. It can be transmitted to the host CCTT Master Control Console via floppy disk or electronically.	
Action Task List	A listing most often associated with a CCTT Exercise TSP Event Guide that provides a list of MTP tasks applicable to the echelon, unit type, and mission type expected to occur during the course of the exercise.	
Action Task-step List	A listing most often associated with a CCTT Exercise TSP Event Guide that provides a list of MTP task-steps within a particular task applicable to the echelon, unit type, and mission type expected to occur during the course of the exercise.	
Assessment Phase Familiar User	A CCTT User who has learned how to assess a structured, simulation-based training.	
Candidate CCTT Exercise Package	An existing CCTT exercise package that appears, based on the initial filtering, to support the training requirements and must be reviewed to determine acceptability.	
Candidate Exercise Package Review Results	The determination of the acceptability of a candidate CCTT exercise package to support the training requirements.	
CCTT Exercise Familiar User	An individual who has completed the Learn about CCTT Exercise and has the knowledge required to select, view, modify, or create an exercise based upon their understanding of existing exercises embedded in the CCTT.	
CCTT Exercise Package	The consolidated products from CCTT intended to support one CCTT exercise.	
CCTT Familiar User	An individual who has completed the Explore CCTT module and knows the basic history and systems configuration of a typical CCTT site.	
CCTT Knowledgeable User	A CCTT User (as defined previously) who has received training on a specific piece of equipment or function found within the CCTT.	Examples of training include formal training from CCTT Site personnel and/or EDUCATT training.
CCTT SME	An individual who has expert knowledge on the Close Combat Tactical Trainer (CCTT).	Typically, the CCTT SME can be expected to bring source documents, expert knowledge, et al. to any process/activity in which they are involved.

Arrow Name	Arrow Definition	Arrow Note
CCTT Support	<p>Inputs and Outputs (in both electronic and paper form) that facilitate links to and from sources external to the CCTT (e.g., printed reports and TSP materials, links to CCTT Site Web sites, links to and from ATIMP Systems).</p>	
CCTT Support Personnel	<p>Personnel assigned to support a CCTT-based exercise. These persons may be members of the supporting site staff or a member of a troop unit detailed to support a planned exercise.</p>	<p>Under the current site configuration, site staff members man the Semi-Automated Forces (SAF) and AAR workstations while soldiers typically occupy and execute mission support using the Unit Support (or Operations Center) Workstations during the conduct on an exercise. In the future, workstation capabilities are expected to be united under single control with SAF serving as the host for all non-manned module entities.</p>
CCTT System	<p>The virtual training system comprised of: manned modules (simulators), unit support workstations &amp; SAF (simulations), control workstations (MCC/MC/AAR), &amp; any associated hardware and software.</p>	<p>MM include M1A1, M1A2, M2A2/M3A2, M113A3, M981, HMMWV, &amp; DIM and associated H/W &amp; S/W. Unit Spt WS include Combat Engineers, CTCP, FABTOC, FDC, FSE, TACP, &amp; UMCPC and their associated H/W &amp; S/W. SAF WS include BLUFOR &amp; OPFOR and their associated H/W &amp; S/W. MCC/MC include the user interface, associated netware, and their associated H/W &amp; S/W required to run, monitor, and maintain the CCTT System. AAR WS includes the OTW sub-component, the PVD, associated radios, storage devices (HDD &amp; tape), and their associated H/W.</p>

Arrow Name	Arrow Definition	& S/W.	Arrow Note
CCTT System Familiar User	An individual who has completed the Examine System Capabilities module and knows what components comprise the CCTT system. Additionally this user has detailed knowledge of individual system capabilities.		
CCTT Training Familiar User	An individual who has completed the Examine Training Capabilities module and knows how components and systems found within the CCTT site can support their training requirements.		
CETT	An add-in to Microsoft PowerPoint designed to allow the training developer to build a CCTT Initialization File with the appropriate data structure and fields required to support CCTT. Additionally, it interacts with CCTT via a shared database to pass information derived from the development of the PowerPoint-based initialization file to the CCTT.	In its current form, it includes the ability to designate all forces to be replicated in CCTT as well as all graphic control measures required for the development of a CCTT exercise file. In its final form (circa release of 03/31/2000), it will include the ability to initialize the CCTT based upon the original PowerPoint file developed file.	
CITT Experienced User	The individual or individuals using CITT to produce CCTT exercise packages and are familiar (as defined by the CITT-Familiar User definition) with the CITT System.		
CITT Familiar User	Any user (see CITT User) of the Commander's Integrated Training Tool (CITT) who has information concerning either the CITT itself or a product generated by CITT and can apply it to another module within CITT or to the CITT System.	Products generated can include Exercise TSP, historical documents, a particular knowledge of a specific function or feature, etc.	
CITT Knowledgeable User	The individual or individuals using CITT to produce CCTT exercise packages and are familiar (as defined by the CITT-Familiar User definition) with the CITT System.		
CITT User	Any user of the Commander's Integrated Training Tool (CITT). Can be any unit trainer, commander, leader, training analyst, & CCTT Site personnel. May also be the casual user ("web surfer") who happens to find the distributed (Internet) version of CITT.	The casual CITT User can be expected to be a transient within CITT (i.e., once the system queries them for information they do not possess, they will leave CITT). The normal CITT User is expected to be a trainer	

Arrow Name	Arrow Definition	Arrow Note
Commo Data	A listing that includes information concerning frequencies by unit and call signs of training unit personnel and the radio designations to which frequency data will be applied.	familiar with U.S. Army operations and training and is using CCTT for a specific purpose. Viewpoint for the current model is from this perspective.
Complete TSP	An exercise package that has been proofed using CCTT and requires some adjustment to either the initialization file or the actual TSP (or both) before it can be considered an Acceptable Exercise Package.	
Contractual Documents	Any document that specifies requirements that will completed by the appropriate contractor team when executing work under contract to the U.S. Government. Applies to contractors for the CCTT System as well as for the CCTT Team and associated endeavors. In some cases, the CCTT SME or Training SME brings these documents to the activity being modeled.	Examples include: system specification documents, inter-operability documents, SOWs, RFPs, Research Reports/Products, etc.
Demos	A series of 12 computer-based, multimedia presentations built to support the original Structured Training for Units in the Close Combat Tactical Trainer (STRUCCCTT) Project. These presentations, packaged using Authorware by Macromedia, are exemplars for tank and mechanized infantry platoons each executing the 6 platoon day-only exercises. Also referred to as Demonstrations of Performance.	
Doctrine	The fundamental principles by which military forces guide their actions in support of national objectives. Is authoritative but requires judgement in application.	Includes combined, joint, multi-service, etc., operations. Includes the Tactics, Techniques, and Procedures (TTP) by which a unit executes a specific mission in consideration of its capabilities as described by TO&E, MTO&E, etc.
EDUCCATT	A computer-based training system designed to provide individual training to MOS-qualified individuals on the operation and use of designated Combat, Combat Support, and Combat Service Support workstations found within the CCTT.	
Event Action	The O/C, Unit, or Workstation Actions associated with cueing an event within a training exercise.	

<b>Arrow Name</b>	<b>Arrow Definition</b>	<b>Arrow Note</b>
Event Guide	A listing used by the unit trainer to coordinate the actions of the training unit in relation to the execution of a task-based training exercise. A "script" or "storyline". Serves as a repository for notations by the trainer concerning unit performance, key events, etc.	During the development of a TSP, the Event Guide is an ever changing/evolving document. During the execution of a TSP, the Event Guide is a loose script that can be adjusted to accommodate fluctuations in a structured exercise that will naturally occur. Includes general guidance for the O/C, as well as Unit Actions (for the O/C to use as a mnemonic device), and Workstation Actions.
Event List	A listing that contains the trainer's entry what events will be included in an exercise and a description of where or how the event can be observed.	
Execution Phase Familiar User	A CITT User who has learned how to execute a structured, simulation-based training exercise.	
Exercise Concept	A short narrative developed during the planning process that contains the Exercise Description, Exercise Concept Diagram, and Workstation information from the Exercise Outline.	
Exercise Concept Sketch	A diagram or rendering of the exercise area (typically an actual or sketch map) with both operational (i.e., standard military) and expository graphics (e.g., designed to provide marginal data to assist in understanding the intent of the exercise).	
Exercise Context	A short narrative that establishes the tactical situation information. Exercise Context allows for the user to designate the starting location information for manned modules, BLUFOR and OPFOR SAF vehicles, and basic communications data for an exercise.	
Exercise Description	A short narrative that establishes the general context in which the exercise is set to occur and the primary and secondary missions of the training unit.	
Exercise Preview	An information set designed to be used by a unit trainer to detail data concerning the tactical situation, tasks and task-steps (from the appropriate MTP), battle rehearsal capabilities, starting locations, and radio call-signs and frequencies for a unit that will be conducting an exercise.	
Exercise Sort Criteria	A function within the CITT that allows the user to select and review a specific exercise embedded within the CITT using one of the following modes: by task (to	

<b>Arrow Name</b>	<b>Arrow Definition</b>	<b>Arrow Note</b>
Exercise Tasks	include filtering by unit echelon and type), by common name (e.g., PADF3-2CCS), or by specifying unit echelon, unit type, and unit mission type expected to occur during the course of the exercise.	
Initialization File	A CCTT exercise file that was originally built using the CEIT (from within CITT) that has been successfully transferred to the CCTT system and initialized for proofing on the actual TADSS.	
Lessons Learned Data	Information that draws upon the collective lessons learned from previous contract projects concerning how to construct, execute, and assess structured, simulation-based training.	
Location & Disposition	A detailed listing containing start data for any element replicated in CCTT.	In the case of a Manned Module, includes unit type, identification, location azimuth (hull & turret), status of fuel & ammo (type and quantity). For all other elements (i.e., CGFs) includes unit type, unit echelon, identification, location azimuth (hull & turret), formation, status of fuel & ammo (type and quantity). For both, space is provided for remarks, exercise specific notes, etc.
Methodology Documents	Any of three documents generated to describe the design of structured, simulation-based training. Specifically, they are: Methodology for the Development of Simulation-based Training, US Army Research Institute, 12/94, no research report #; Report on the Expanded Methodology for the Development of Structured Simulation-based Training Programs, US Army Research Institute, 06/97, Research Report #1710; & Guide to Development of Structured Simulation-based Training, US Army Research Institute, 06/97, Research Product #97-14.	Includes filtering tools used to develop a training scenario (modified from previous or newly created). Typically these include the unit echelon, type, & mission.
Mission Concept Sketch	The tactical framework within which an exercise or set of exercises is created.	
Mission Parameters	A set of training requirements that is used to create a new exercise package.	
New CCTT Exercise Requirement	These establish the requirements and are not simply the exercise products themselves. Any time a "new" (complete or modified)	

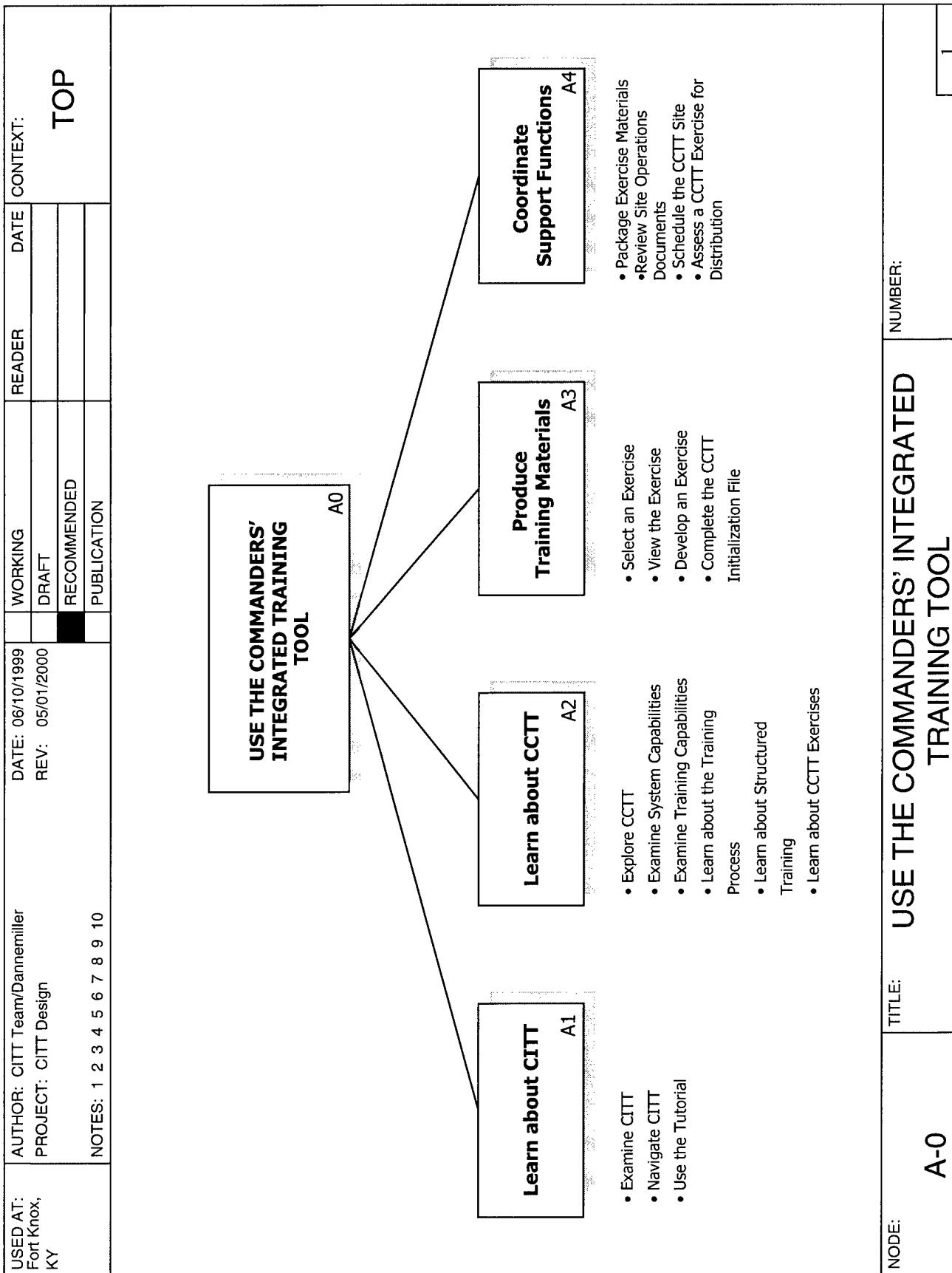
Arrow Name	Arrow Definition	Arrow Note
O/C Action	Specific guidance to the observer/control that serves as a storyboard for the Exercise TSP. It includes a narrative for the O/C to use in conjunction with the unit actions, action tasks, workstation actions, and observation guidance.	package is created, it is always driven by the training requirements.
Observation Guide	A listing used by the unit trainer in documenting specific activities the O/C should observe from the training unit during the conduct of a specific task or task-step within an exercise.	
Partially Acceptable CCTT Exercise Package	This existing CCTT exercise package is selected during the review as containing materials that partially support the specified CCTT training requirements. It will be modified to create a "new" exercise package that will support the specified training requirements.	Includes a template for the use in the creation of a wholly new exercise using the "Create" option.
Partially Complete TSP	A completed CCTT-based exercise file that has not been proofed on the CCTT.	
Planning Phase Familiar User	A CCTT User who has learned how to plan for structured, simulation-based training.	
Prep Phase Familiar User	A CCTT User who has learned how to prepare for a structured, simulation-based training exercise.	
Proofed Exercise	A completed CCTT-based exercise file that has been proofed on the CCTT.	
Refined Initialization File	A CCTT exercise file that was originally built using the CEIT (from within CCTT) that has been successfully transferred, initialized, and proofed on the actual CCTT system.	
Sr. Training SME	An individual who has expert knowledge on training, training systems, and the structured training methodology in the U.S. Army.	Typically a branch-qualified LTC who has been exposed to CCTT, CCTT, and the ADTDL who serves as the approving authority for the migration of CCTT-developed exercises to the CCTT exercise repository.
Station Action	Specific guidance found in the Workstation Execution Guide and the Exercise TSP Event Guide that specifies the exercise timeline and interactions the operator is expected to execute in support of the training unit.	
Structured Training Familiar User	An individual who has completed the Learn about the Structured Training module and can apply the 4-phase approach to structured, simulation-based methodology in the development of training support packages.	
System Availability	A result of the determination made by weighing a particular exercise's	

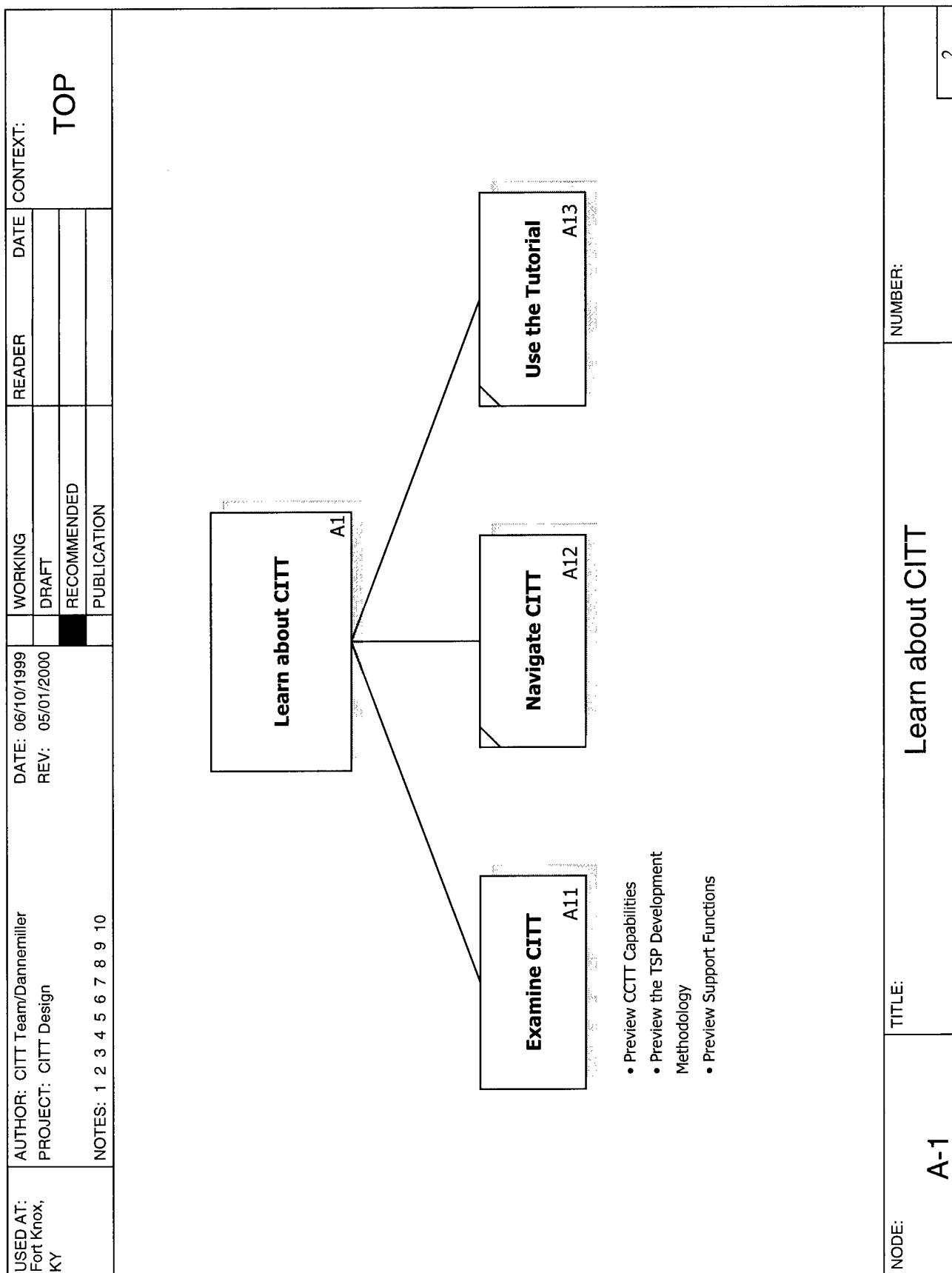
<b>Arrow Name</b>	<b>Arrow Definition</b>	<b>Arrow Note</b>
Tactical Situation	requirements against the availability of assets within a supporting CCTT site.	
TEXMIS	A short narrative, generally derived from the tactical OPORD, that details the context within which the exercise will occur. Includes data on friendly and enemy elements.	Links to TEXMIS are expected to be actual. For prototypes, the link is expected to be conceptual.
Training Event Table	An automated training information system which allows branch proponent schools, units and Department of the Army training information systems to share common data. It utilizes a central repository of readily available critical training information.	
Training Guidance	A listing that includes an event, a task designated by the trainer, and a description of the expected action.	
Training Materials	Instructions from a higher authority on what training should be completed by a unit prior to the execution of the next major training event to ensure success in that training event.	The consolidation of those items required for the conduct of training with the CCTT.
Training Process Familiar User	An individual who has completed the Learn about the Training Process module and can apply the structured, simulation-based methodology in planning, preparing, executing, and assessing a scheduled CCTT training exercise.	Typically this includes all pre-execution, execution, and post-execution materials (to include the actual CCTT initialization or reader files) that will be used by the training unit, the supporting unit(s), and the supporting CCTT site staff.
Training SME	An individual who has expert knowledge on training in the U.S. Army.	This individual typically uses military maps, overlays, references (e.g., FMs, STs), etc. when developing, conducting, or assessing training.
Unit Action	A listing found in the Exercise TSP Event Guide that delineates the exercise timeline and interactions the unit is expected to execute. It is used in conjunction with the O/C Actions, Workstation Actions, and ARTEP Task/Task-step listings.	
Unit METL	A unit's mission essential task list as identified by higher training guidance and its own assessment of its abilities to accomplish its combat mission.	
Unit Training Requirements	The training factors to be supported by a CCTT exercise. These will translate into Examples include tasks (to be	

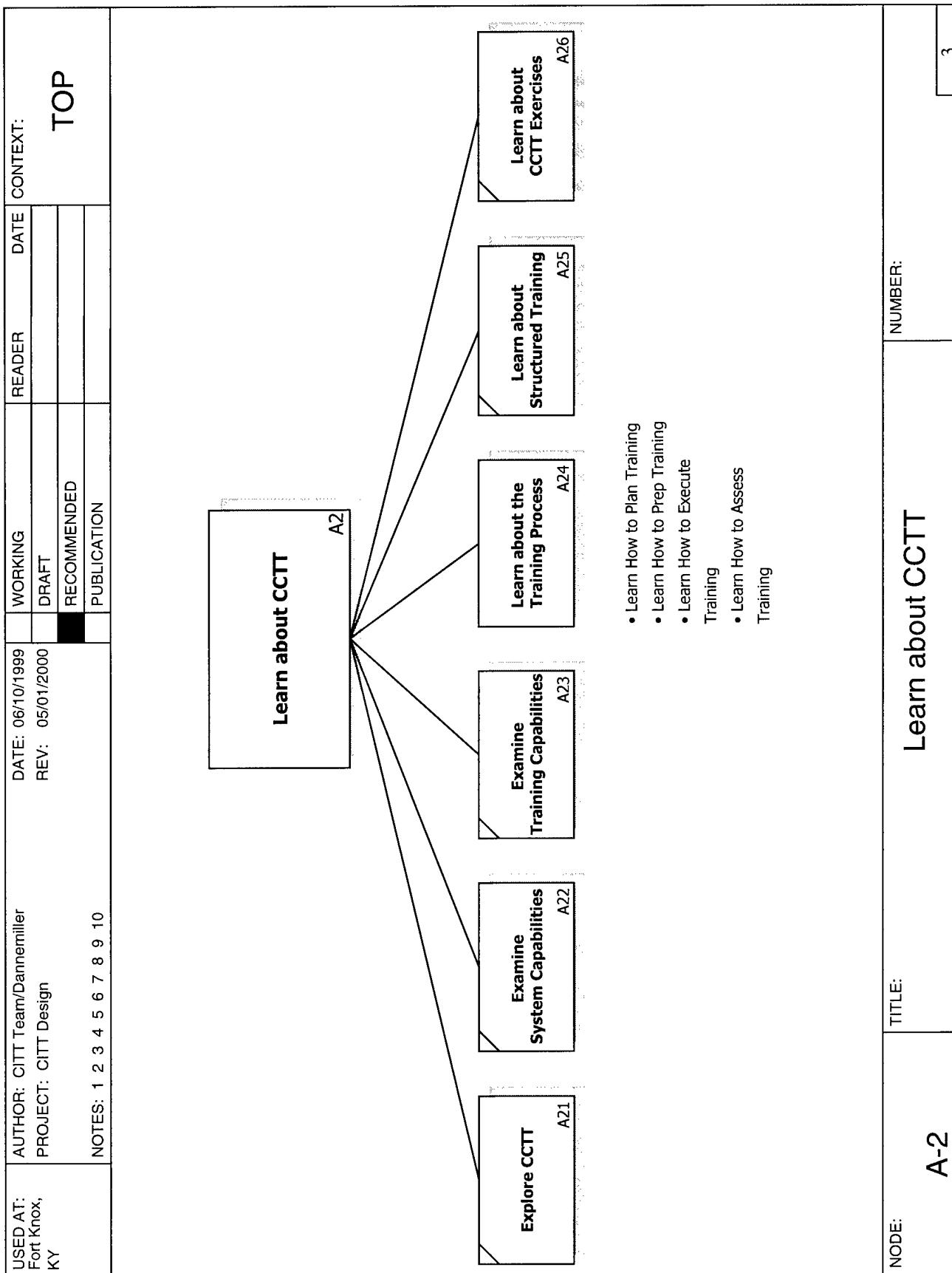
<b>Arrow Name</b>	<b>Arrow Definition</b>	<b>Arrow Note</b>
	a supporting exercise package.	trained), terrain, mission, organization (of training unit and supporting elements), enemy, etc.
Workstation Action	A brief description in the Event Guide that provides a listing of the actions the workstations will perform in relation to a specific event in the exercise. In the case of a BLUFOR or OPFOR workstation it also identifies what Combat Instruction Set a specific SAF unit will perform.	
Workstation Guide	A listing that provides specific guidance to workstation operators concerning the exercise focus, guidance specific to their workstation and elements controlled by it, starting locations for forces generated by the specific workstation and specific rules of engagement.	Also referred to as the Workstation Execution Guide.
Workstation Listing	The delineation of workstations required to support a particular CCTT-based exercise as determined by the training developer as part of the development of the tactical situation.	

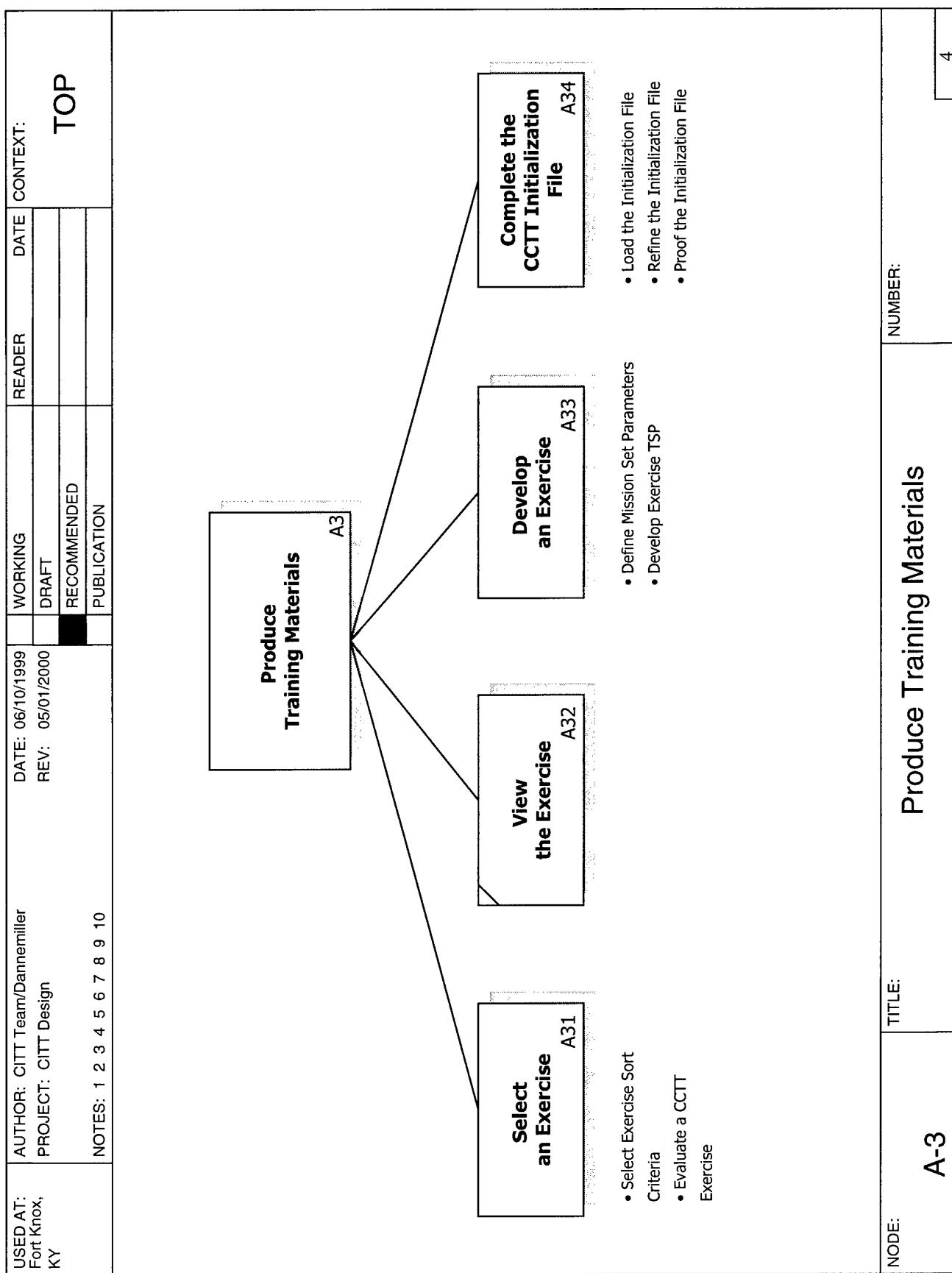
## Appendix C

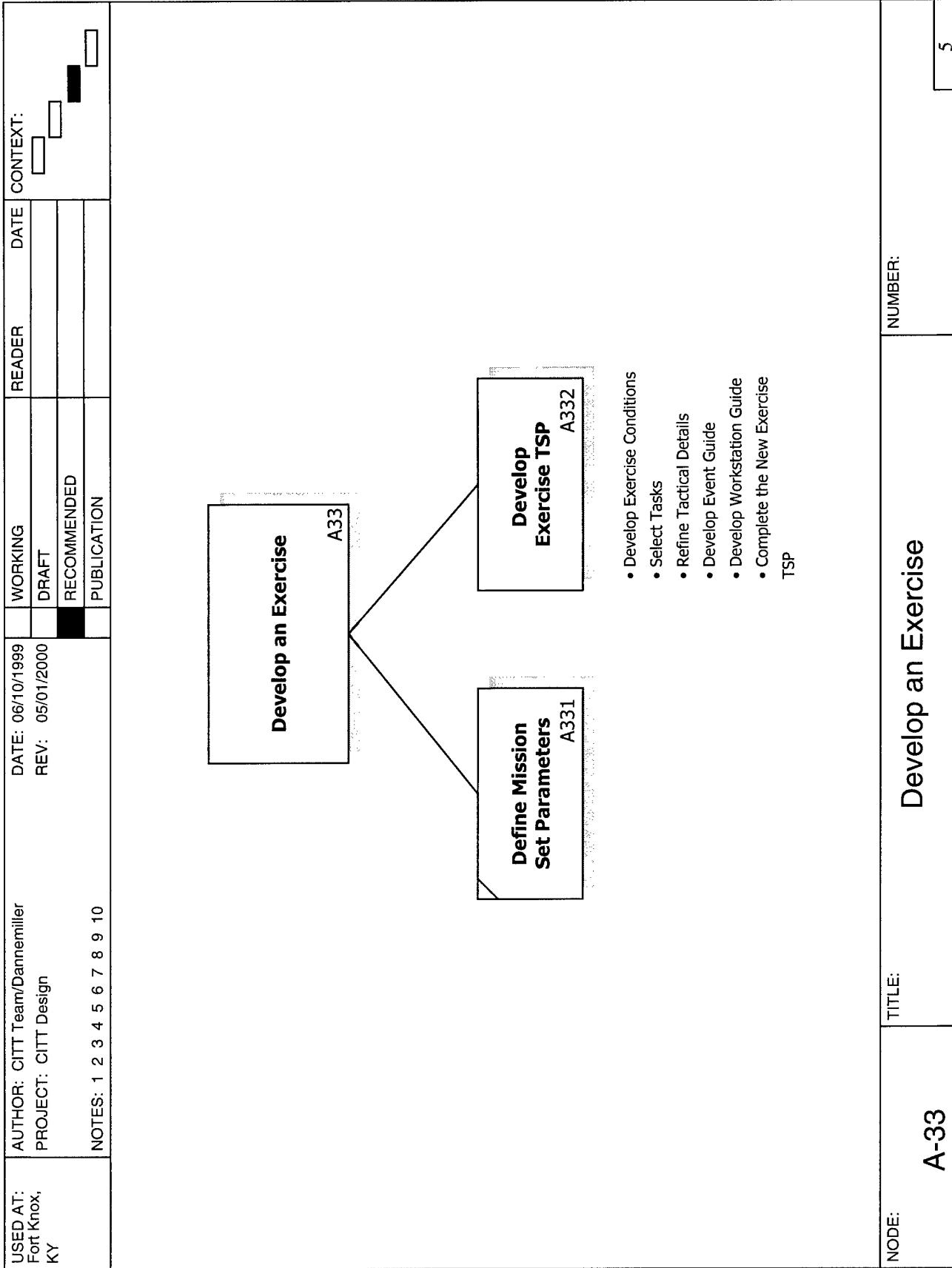
### Node Tree Diagrams

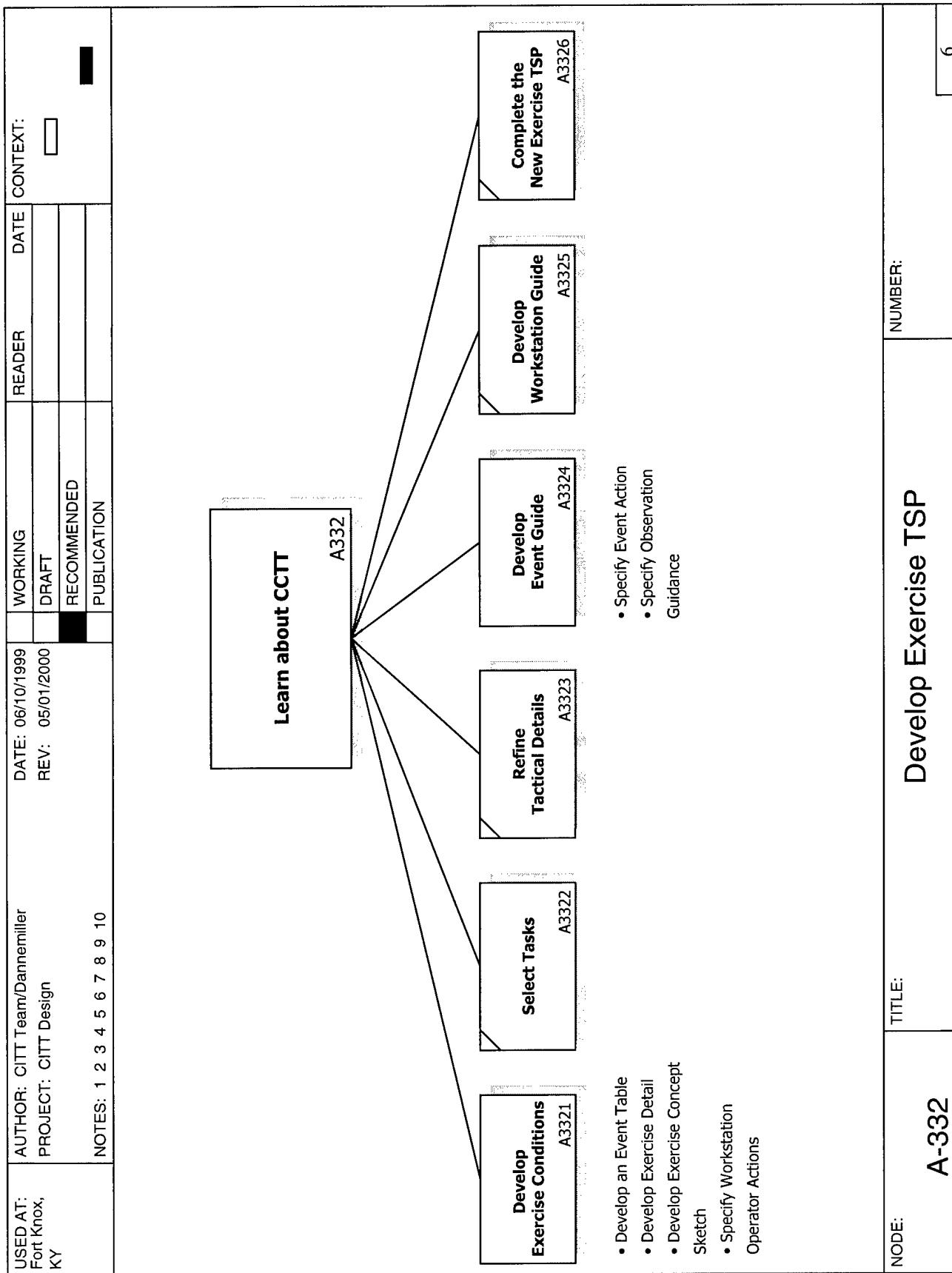


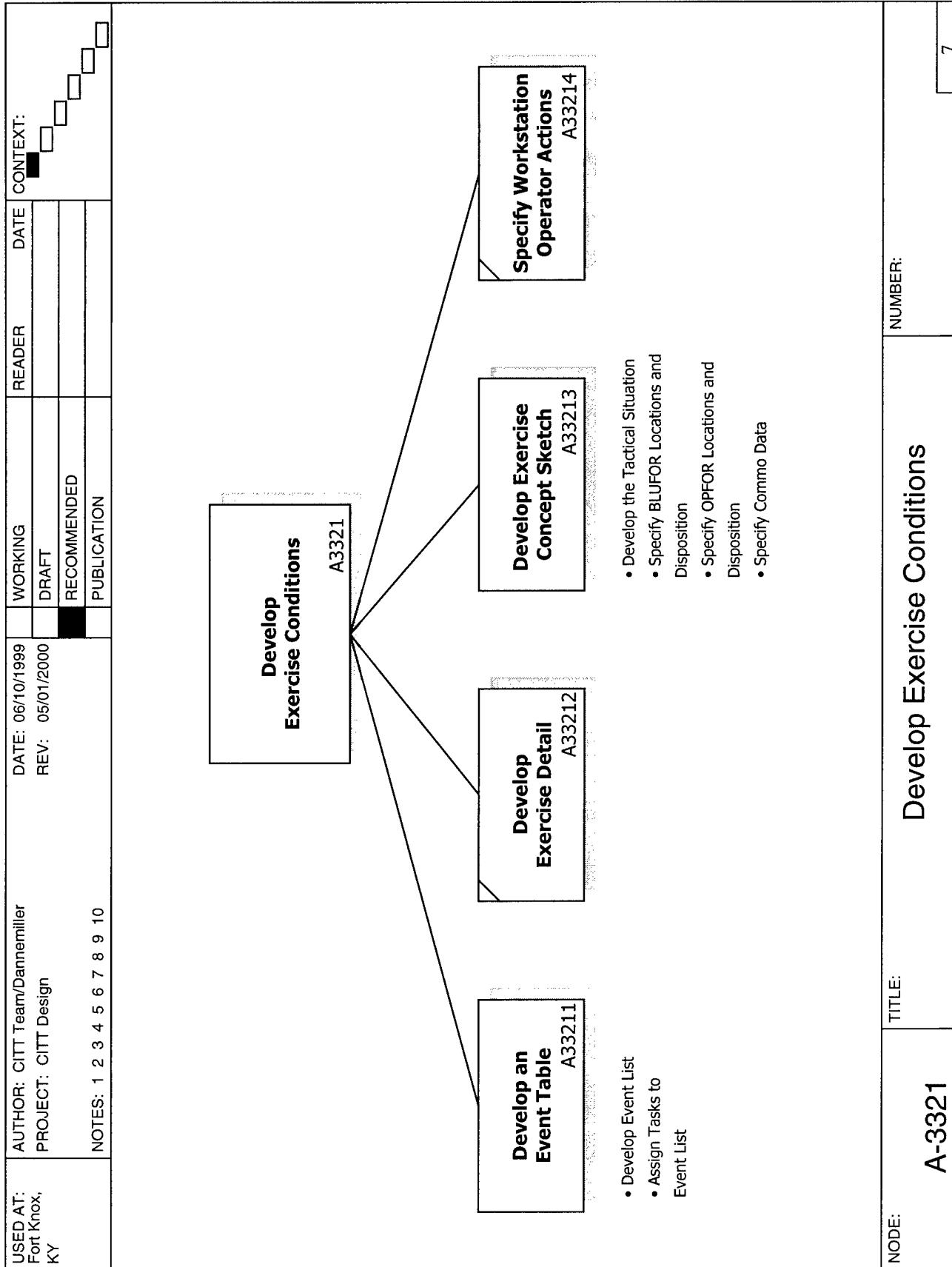












USED AT: Fort Knox, KY	AUTHOR: CITT Team/Dannemiller PROJECT: CITT Design  NOTES: 1 2 3 4 5 6 7 8 9 10	DATE: 06/10/1999 REV: 05/01/2000  WORKING DRAFT RECOMMENDED PUBLICATION	READER  DATE CONTEXT:
<pre> graph TD     A[Develop Event Guide A3324] --&gt; B[Specify Observation Guidance A33242]     A --&gt; C[Specify Event Action A33241]   </pre> <p>The flowchart illustrates the process flow. The main title "Develop Event Guide" (A3324) is at the top left. Two arrows point downwards from it to two separate boxes: "Specify Observation Guidance" (A33242) on the right and "Specify Event Action" (A33241) below it. Both of these boxes have small arrows pointing towards the bottom right corner, indicating they lead to a common destination.</p>			
NODE: A-3324	TITLE: Develop Event Guide	NUMBER: 8	

